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## T HE

## ROSE GARDEN.

## IN TWO DIVISIONS.

## DIVISION I.

EMBRACING THE HISTORY OF THE ROSE, THE FORMATION OF THE ROSARIUM, AND A DETAILED ACCOUNT OF THE VARIOUS PRACTICES ADOPTED IN THE SUCCESSFUL CULTIVATION OF THIS POPULAR FLOWER: ILLUSTRATED WITH NUMEROUS ENGRAVINGS ON WOOD.

## DIVISION II.

CONTAINING AN ARRANGEMENT, IN NATURAL GROUPS, OF THE MOST ESTEEMED VARIETIES OF ROSES (RECOGNISED AND CULTIVATED IN THE VARIOUS ROSE GARDENS, ENGLISH AND FOREIGN; WITH FULL DESCRIPTIONS AND REMARKS ON THEIR ORIGIN AND MODE OF CULTURE.


Sappho was enamoured of the Rose, and bestows upon it always some distinguished praise: she likens it to the most beautiful of maidens.-Philostratus, Er, 73 ,

## BY WILLIAM PAUL,

 NURSERYMAN, CHESHUNT, HERTS.
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TO THE

# ROSE AMATEURS 

 ofGREAT BRITAIN

## THIS WORK

IS MOST RESPECTFULLY INSCRIBED
BY
THEIR HUMBLE SERVANT,

THE AUTHOR.


PREFACE.

IN submitting the present work to the public, it is thought desirable to state that it contains an exposition of the principles followed in the Cheshunt Nurseries, where the Rose has been extensively and successfully cultivated for many years. A chief inducement to its publication was, the writer's desire to improve the condition of a favourite flower. It had long appeared to him that a work entering into the detail of Rose-culture, elucidating the various practices by means of Wood-engravings, and furnishing Coloured Plates of some of the choicest kinds, was a desideratum; and that the non-existence of such a work proved a formidable barrier to the agreeable and satisfactory prosecution of this branch of Floriculture.

Holding these views, it was his wish to publish in a form, and at a price, which would place the work within reach of the humblest cultivator; but the great expense attending the production of Coloured Plates in a highly-finished style, and the knowledge that the circulation of a class-work must necessarily be limited, pointed out the impracticability of pursuing such a course, and the idea was ultimately, though with reluctance, abandoned.

The publication did not, however, appear unadvisable because it could not be made more generally accessible. On the contrary, it was evident, from conversation with numerous Amateurs and professional Florists, who from time to time visited the Nurseries, that it was greatly required. It was argued that there were more lovers of flowers seeking amusement in the culture of the Rose at the present time than at any previous period; that the most difficult and important branches of cultivation were nowhere fully and clearly treated of; and that although other favourites had figured liberally in the Floricultural Periodicals of the day, this had remained almost unnoticed, no series of Coloured Drawings having appeared later than 1820, since which period the Rose had undergone a thorough change. Into the causes of this it is needless to inquire. Suffice it to say, that the neglect could not have originated in an indifference to the merits, or a supposed unpopularity of the flower. We can scarcely enter any garden, however humble, which does not contain a Rose-tree; and many of the noted establishments in England have, like in Rome of old, places set apart expressly for their cultivation. And it is not a slavish obedience to fashion that has led to this. Although cherished alike by peer and peasant, the popularity of the Rose rests on a surer foundation-its intrinsic merit. What other genus of
plants embraces so great a variety of character, or gives forth such a number of delicious blossoms for so long a period? Moreover, it is easy of culture; suited to a great variety of soils; lives and blooms even when neglected; yet yields an abundant return for whatever labour may be bestowed upon it.

The Rose Garden is arranged in two Divisions. The First includes Chapters on The History of the Rose, the Formation of the Rosarium, and the various practices of Cultivation. The Chapters on Hybridizing and raising Seedlings are, it is believed, altogether new, and likely to prove interesting and useful at this particular era in Rose-culture. The Second Division embraces a natural arrangement of all the approved Roses known, with full descriptions of their colours, sizes, forms, degrees of fulness, habit, rates of growth, and purposes for which best suited. The descriptions are chiefly the result of close personal observation, having been taken from living specimens at a great cost of time and labour; which will be granted readily, when it is stated that above 2000 varieties are described. Nevertheless, it was judged desirable to pursue this course, in order to attain to that accuracy in the descriptive part of the work which should render it a safe and efficient guide in selecting varieties.

The execution of the Coloured Drawings has been entrusted to eminent artists, whose design has been, not to fabricate a pleasing flower, but to produce exact representations of nature. This feature of the work presents the cultivator with Roses at all seasons;-alike when the blasts of autumn scatter his favourites without doors to the winds of heaven, and the rigours of winter surround them with the garb of death.

Before concluding, the writer would acknowledge his obligations to numerous Correspondents for suggestions received from time to time during the period of publication. Such Letters as contained hints on cultivation he has inserted in the Appendix as advertised; and regrets that want of space should have compelled him to curtail some interesting communications. The "Botanical Notes on the Rose" are particularly valuable, and should be read by all who feel inclined to enter upon the pleasing task of raising seedlings.

Nurseries, Cheshunt, Herts, May 1st, 1848.

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## DIVISION I.

## TO EMBRACE THE HISTORY OF THE ROSE,

## THE FORMATION OF THE ROSARIUM,

AND A DETAILED ACCOUNT OF THE VARIOUS PRACTICES ADOPTED IN THE SUCCESSFUL CULTIVATION OF THIS POPULAR FLOWER:

THE SUBJECT ILLUSTRATED WITH NUMEROUS ENGRAVINGS ON WOOD.

## CHAPTER I.

## THE HISTORY OF THE ROSE.

$\mathrm{T}_{\text {He Rose, which is the leading flower of the day, the acknowledged favourite of }}$ the two greatest nations in the world, is to be found, in a wild state, very generally spread over the earth's surface.

As if too beautiful to be excluded from the natural Flora of any one of the ancient divisions of the world, it graces alike various countries of Asia, Africa, and North America, and extends over the whole of Europe, where, blooming in its native wildness and simplicity, it is universally prized and admired.

But although the geographical distribution of the various species makes the Rose an inhabitant of nearly the whole of the Northern Hemisphere, some species are far less plentiful than others, or, if plentiful in certain localities, have a less extended range. Here is one, confined to some particular and favoured spots; here another, not content with ranging one quarter of the globe;-the Rosa Canina for instance, the one most commonly seen adorning our wilds and hedge-rows, is found also in Africa and Asia.

It is a remarkable fact, that Australia has naturally no Roses; and none have yet been found wild very near to, or south of, the Equator. It is in the temperate regions of Asia, and throughout Europe generally, that those species abound, from which nearly the whole of the present garden varieties have sprung. But if we extend our view, we find some growing on the mountains of North America, whose tops are covered with eternal snow; and others in the dreary wilds of Greenland, Kamschatka, and Iceland; while in Siberia there are several interesting species. On the other hand, if we turn to warmer climates, we discover that Mexico, Abyssinia, China, Persia, India, and Egypt have their Roses ; and even on the outskirts of the mighty Sahara one species is found, gladdening the approaches to the desert with its clusters of white flowers, though doubtless often

$$
\begin{aligned}
& \text { And waste their sweetness on the desert air. }
\end{aligned}
$$

Who were the first people to bring this flower from its natural habitats, to be a dweller in cultivated grounds, will ever remain a matter of conjecture. Doubtless it attracted the notice of the virtuoso in plants at a very early date; probably
when they were merely valued as objects of natural history, or for their medicinal properties. We may follow in imagination the busy doings of the plant-collector in the earliest times; we may fancy him gathering, and fixing in one spot, the beautiful productions scattered around him; and it is natural to suppose that the most beautiful, or most useful, would be the first collected. This surely would give an early date to the civilization of the Queen of Flowers. And doubtless the Rose has a claim to our regard as well for its antiquity, as for its beauty, variety, and fragrance. The famous gardens of Babylon, which are supposed to have existed 2000 years before the Christian æra, would probably number it among its treasures. This, of course, can be but conjecture; though the probability is increased when we consider that the neighbouring country, Persia, has ever been famous for the Roses it naturally produces. In the Sacred Scriptures we read of " him who was to make the wilderness be glad, and the desert to blossom as the Rose" : we read also of " the Rose of Sharon," and "the Rose of Jericho."

It has been questioned whether the flowers met with in translations of the ancient writers are identical with those known under like names in the present day. Indeed, what is commonly known as the Rose of Jericho, is a little cruciferous plant, with white flowers, very different from our Roses. I do not feel disposed to enter into this question; indeed it would be out of place to do so here: but I would remark, in passing, that the non-existence of the wild forms in those countries, at the present time, is not conclusive evidence to me that they never flourished there ; or even were it so, the productions of other countries might have been introduced, to administer to the comforts and enjoyments of this people.

In the Book of Wisdom (chap. ii. ver. 7, 8) the following passage occurs:"Let us fill ourselves with costly wine and ointment, and let no flower of the spring pass by us. Let us crown ourselves with Rose-buds before they be withered." Hence it is apparent that the practices so common with the Greeks and Romans of crowning themselves with flowers at their Bacchanalian feasts, and on various other occasions, were resorted to in these early times, and most probably were borrowed from the Jews. Again, in the Book of Ecclesiasticus (chap. xxxix. ver. 13) we find the following passage:-"Hearken unto me, ye holy children, and bud forth as a Rose growing by the brook of the field." Homer, the most ancient of all the profane writers, uses the Rose figuratively, both in the Iliad and Odyssey ; and above 2000 years have rolled away since Sappho christened it the "Queen of Flowers." Philostratus (Epistle 73), writing of this lyric Poet, says, "Sappho was enamoured of the Rose, and bestows upon it always some distinguished praise : she likens it to the most beautiful of maidens." Such was the Rose then, and it still maintains as distinguished a position. It were scarcely necessary to search the Greek authors for quotations to shew in what esteem that people held our flower. Ancient history, by which their customs are handed down to us, bears sufficient evidence of its popularity. The Rose, with other flowers, was used by them in times of public rejoicings, in their religious ceremonies, and the youth of both sexes wore them in the fêtes.

They consecrated it to Venus, Cupid, Aurora, and also to Harpocrates, the God of Silence. If it was dedicated to Venus as an emblem of beauty, and to Cupid as an emblem of love, we may conjecture wherefore it was also dedicated to the goddess of the morning: it was the symbol of youth. But, beyond this, the Greeks doubtless were alive to the fact, that the Rose is most beautiful at sunrise : then, newly expanded by the breath of morn, there is visible all that freshness, in which consists so much of its peculiar beauty, and which soon vanishes before the radiance of a summer's sun. From its being consecrated to Harpocrates, the God of Silence, probably arose that custom practised in the north of Europe, but now almost fallen into desuetude, of suspending a Rose from the ceiling at convivial or other meetings, to signify that what transpired was of a confidential nature. "The White Rose has long been considered as sacred to silence: over whatever company it was suspended, no secrets were ever revealed, for it hung only above the festal board of sworn friendship. No matter how deep they might drink, or how long the wine-cup might circulate round the table, so long as the White Rose hung over their heads every sccret was considered inviolable;-no matter how trivial, or how important the trust, beneath that flower it was never betrayed; for around it was written the sentence-

He who doth secrets reveal
Beneath my roof shall never live.
What faith, and what confidence must there have been between man and man in the olden time, when only the presence of a flower was needed to prevent the maligning whisper-to freeze up slander's hateful slime-and destroy that venom, which, when once circulated, proves so fatal to human happiness! Beyond the circle to which the expressive text was assigned that wound about the Rose, not a whisper wandered. The pleasure only was remembered; the painful word forgotten ere it had gathered utterance; or, if remembered at all, it was only as having existed for a moment "under the Rose." Truest test of friendship! inviolable bond of brotherhood! sacred altar, on which heart was sworn to heart! thou didst need no golden chains to bind thee to thy trust; no solemn vow sworn but to be broken. Nothing but a simple White Rose, to bind these men of true hearts and strong faith together!" - The Poetical Language of Floners, by Thomas Miller. Bogue. London.

Hence, in ordinary conversation, some people, when about to communicate any thing in confidence, announce their intention by the expression, "Sub Rosa."

Sappho having named the Rose the "Queen of Flowers," other of the Greek writers would naturally consider it a subject worthy of their attention. This was eminently the case. Theocritus, on account of its transitoriness, compares it to the course of human life. The gay Anacreon alludes to it in several of his Odes, calling it "the most beautiful of flowers," "the delight of the gods," "the favourite of the muses"; and says its leaves are full of charms. He speaks of it still more definitively as useful in diseases. The Rose is made the particular
subject of his Fifty-third Ode, wherein the poet considers it sacred, and accounts for its origin in a marvellous manner.

While Spring with lavish flow'rets glows,
From the gay wreath I'll pluck the Rose,
The queen of fragrance will display.-
Oh! pour, my friend, th' accordant lay.
Dear to earth, thy smiling bloom!
Dear to heav'n thy rich perfume!
Sacred to the sportive hour,
When the loves, from flower to flower,
Blithely trip; the Graces fair
Bind thy treasures to their hair ;
By the Paphian queen caress'd,
Seated on her snowy breast.
Nymphs, who haunt th' embow'ring shades, Poesy's enchanting maids, Woo thee, Rose; thy charms inspire
All the raptures of the lyre.
Cull we straight th' inviting Rose ;
Shielded by the thorn it grows.
Cull the Rose: what boots the smart?
Boundless sweets regale the heart.
Pluck it not: the flow'ry gem
Unwilling quits its parent stem.
Round the feast of fragrance rove ;
But gently touch the Rose of love.
Mid the sons of Comus spread
Blooms the Rose's living red ;
Chaplet for the thirsty soul, Well it crowns the purple bowl.

Hark, the bard! his numbers pour Incense to the sacred flower. The rosy-fingered beam of light
Undraws the curtain of the night.
Health's blushing Rose the virgin streaks, And paints the down of Venus' cheeks.
Lovely Rose! thy genial power
Sweetly soothes the sickly hour;
O'er the grave thy fragrance shed;
We sink in quiet to the dead.
When the envious hand of Time
Nips the honours of thy prime,
Fresh in youth thy odours bear
Richness to the ambient air.
Say from whence the Rose divine
Bids th' unrivalled lustre shine?
From the liquid caves of night,
When Cytherea waked to lightb 3

> Waked from her Neptunian birth, To fill with love the circling earth: From the forehead of her sire, When Pallas sprang with martial fire, Nature gave the Queen of Flowers, Coeral sister of the Powers.
> When th' immortals' frolic souls Glow'd with Nectar's copious bowls, By chance, upon a blooming thorn, Such as the heavenly seats adorn, Prolific fell the ethereal dew ;Consecrated Roses grew. The topers hail'd the plant dirine; And gave it "To the god of wine!"
> $\quad$ [Anacreon, Ode 53. Translated by Green.

Moschus, in his Elegy on the Death of Bion, says, "Blush mournfully ye Roses."

It appears that the Greeks cultivated this flower with the view of extracting the perfume from its petals. And Theophrastus, who lived about 300 years before the Christian æra, tells us it was common to set fire to the Rose-trees in Greece; and that unless this practice was resorted to, they would not produce any flowers. Is the writer in earnest? If so, this does not say much for the knowledge they possessed of the art of culture in those days. But although flowers were so much used on special occasions, it is generally admitted that gardening, considered as an art, was neglected by the Greeks.

If the Greeks considered the Rose worthy of adoration, the Romans were by no means less lavish in the praises they bestowed on it. They regarded it with that veneration and enthusiasm which the high encomiums passed on it by a people they so much admired might be supposed to give rise to. It has been said by some writers that the Romans acquired their taste for these flowers from the Egyptians, who, during the early ages of the Republic, sent quantities of them to Rome every year. But it appears to me more probable that the taste was acquired from the Greeks, although the Egyptians might have administered to, and further developed it. Virgil, "the prince of Latin poets," makes frequent mention of the Rose in his writings. In the opening of the Fifth Pastoral he contrasts the pale sallow to the blushing Rose:

> Puniceis humilis quantum saluinca rosetis;
> Judicio nostro tantum tibi cedit Amyntas.
[Ecloga 5. ver. 17, 18.
In the Georgics he speaks of "Pæstum Roses with their double spring":
Forsitan et, pingues hortos quæ cura colendi
Ornaret, canerem, biferique rosaria Pæsti.
[Georg. lib. iv. ver. 118, 119.
In reference to the latter quotation, Botanists who have visited Pæstum have
not been able to meet with Roses flowering in autumn; and some people have pronounced them creations of the poet's fancy. Be this as it may, it might be accounted for, I think, by presuming the adoption of a particular mode of culture. The culture of Roses was a trade at Pæstum ; and might not the cultivators have forced the plants, to induce them to flower early in the spring? After this, they might rest them for a period; and then, by pruning and watering, backed by the influences of their climate, cause a new growth, and consequently a second development of flowers. I can quite conceive of the practicability of this, although no one who cared for the ultimate weal of his plants might be disposed to practise it. Or, again, is it not probable that some of the Roses raised from seed were of this nature, though lost during the barbarous ages which succeeded the downfall of Rome?

Cicero, Ovid, and Martial, speak of Roses; and Pliny, who wrote on Gardening towards the close of the first century, devotes some considerable space to them. He mentions those of Carthage, and others of Miletus (supposed to be R. Gallica). He tells us they used to obtain Roses before the natural scason, by watering the plants with warm water so soon as the buds were visible. Whether such was the plan pursued by the Roman gardeners we are at perfect liberty to doubt, although it is certain they had, under the reign of Domitian, abundance of Roses in winter. Martial, the famous epigrammatic poet, ridicules the Egyptians for sending them Roses when they had already plenty, and asks them to send corn instead. Dr. Deslongchamps relates, on the authority of Seneca, that the Roman gardeners had at this time found out the means of constructing hot-houses, which they heated with tubes filled with hot water, and thus induced Roses and Lilies to flower in December. (La Rose, \&c., par Dr. Deslongchamps.)

On the authority of Horace, it appears that Roses were grown in beds; and Columella mentions a place being reserved expressly for the production of late Roses.

With regard to the culture of this flower in those times, M. Boitard says, "The cultivation of flowers, and particularly of Roses, was carried on upon a grand scale, both at Pæstum and in the environs of Rome. The sale of the flowers was ordinarily in the hands of the prettiest girls of the place; and the Latin Poets have immortalized the names of several of these charming flower-girls, and have even deified some of them. The divinity of Flora, the goddess of flowers, has no other origin." (Mamuel Complet de l'Amateur des Roses, \&c., par M. Boitard. Paris, 1836.)

If there is any one period in the world's history, when flowers engrossed too much the attention of a nation, it was under the reigns of Augustus and subsequent Emperors of Rome. The love of flowers was then carried to excess; and the Rose seemed to bear away the palm from all. It was customary for such of the inhabitants as could afford it, to take their meals resting on Rose-leaves,a practice which Cicero loudly condemns. They were scattered upon the beds and floors of the chambers of their guests. At their festivals they put the flowers
in their cups of wine. In times of public rejoicing the streets were strewed with flowers, and the statues of their deities were adorned with crowns and garlands of Roses. Cleopatra, in a feast given to Marc Antony, is said to have expended a talent in their purchase; and the room of entertainment was strewed with them to a considerable depth. Suetonius, the Latin historian, relates of the Emperor Nero that he spent four millions of sesterces, amounting to more than $30,000 l$., in procuring Roses for one feast. Alas, that these gems of earth should have been so perverted from their just use! Here, instead of opening up a source of pure and intellectual enjoyment, we see them debased, and administering to the lust of a luxurious people.

It was customary with both Greeks and Romans to bring in flowers, Roses especially, at their Bacchanalian feasts, placing them on the tables, and ornamenting their persons with them, believing they preserved them from the intoxicating influences of wine. It is said that the Esquimaux and the Georgians, in the present day, decorate their hair with the flowers of the wild kinds which adorn their respective countries.

We have heard Anacreon's tale of the origin of this flower; and writers subsequent to him, struck probably by the beauty of his composition, or willing to keep up so agreeable a delusion, have also attributed to it a supernatural origin. They do not, however, agree as to the source from whence it sprung. Bion, in the Epitaph of Adonis, tells us it arose from the blood of this lovely youth, who was destroyed by a wild boar. Others of the ancient poets say it was changed from white to red by being stained with the blood of Venus, whose feet were lacerated by its thorns in her endeavou's to save Adonis. Spencer makes a beautiful allusion to this latter fancy in the Daphnaida :

White as the native Rose before the change
Which Venus' blood did in her leaves impress.
But of the English Poets hereafter.
From the fall of the Roman empire there exists a chasm in the history of gardening which cannot be filled up. The world, sunk in a state of barbarism, had neither inclination for, nor opportunity of, enjoying pursuits of this kind; and Roses share in the general oblivion. As, however, mankind emerged from this state-as wars became less frequent, and men felt the blessings of peace-they found time to attend to the comforts and enjoyments of life. Charlemagne, who flourished in the beginning of the ninth century, enumerates the Rose, among other flowers, and shews his fondness of it by desiring it to be grown in his garden.

The Rose was the favourite flower with the Moors of Spain, and they paid considerable attention to its cultivation. They sowed the seeds; and it has been said they had blue Roses, which were obtained by watering the plants with indigo water. That they had such cannot for a moment be supposed; and the means by which it has been said they obtained them are still more questionable. Nevertheless, a French writer (Marquis D'Orbessan, Essai sur les Roses) states
that he saw them. I have heard persons, unacquainted with floriculture, maintain that they have seen pure yellow Moss Roses! a deception probably practised on them by a charlatan, or some witty friend. Is it impossible that the same thing might happen with the Marquis D'Orbessan?

Pierre de Crescent, an Italian, who wrote early in the fourteenth century, mentions the Rose. It has also, for some ages, been a custom of the RomanCatholic Church for the Pope to consecrate a golden Rose, and send it to the monarch of some State, as a token of his particular esteem. Two of our kings received this mark of distinction-Henry the VIth and Henry the VIIIth. "They made," says M. Boitard, "the delicate and ephemeral Rose emblematic of the frailty of the body, and the short duration of human life; and the precious and unalterable metal in which it was modelled alluded to the immortality of the soul."

It is now customary throughout Italy, as it was in ancient Rome, to use flowers in times of feasting, and in the ceremonies of religion ; and the Rose is an especial favourite.

But let us glance hastily to the land of the East-Persia. The Poets of that country idolize this flower, placing it, in song, in company with the nightingales. That it holds a high rank there may be gathered from the following fable:-"One day," says Saadi, "I saw a tuft of grass which surrounded a Rose-tree. What! cried I, is this vile plant, born to be trodden under foot, come to dwell in company with Roses? I stooped to pluck it out, when it modestly said to me, Spare me, I pray thee: I am not a Rose it is true, yet by the perfume which I exhale you may perceive at least that I have dwelt with Roses." (Manuel Complet de l'Amateur des Roses, par M. Boitard. Paris, 1836.)

In Persia, and throughout the East generally, Roses are grown in considerable quantities, for the manufacture of Rose-water, and the famed Attar of Roses, which has been sold for six times its weight in gold. The Musk Rose is, I believe, the variety cultivated. The Attar, or Otto, of Roses is manufactured chiefly at Ghazeepore, in Bengal ; but it is also prepared in Persia, in all parts of India, Upper Egypt, and in Tunis. In the Bengal Dispensatory there (The Bengal Dispensatory, by W. B. O'Shanghnessy, M.D., Calcutta, 1842) is a paper, drawn up by Dr. Jackson, on the Cultivation of Roses, and the Manufacture of Rose-water and Attar of Roses.
"Around the station of Ghazeepore," says this anthor, "there are about 300 becgahs, or about $1 \rho 0$ acres, of ground laid out in small detached fields as Rose gardens, most carefully protected on all sides by high mud-walls and pricklypear fences, to keep out the cattle. These lands, which belong to Zemindars, are planted with Rose-trees, and are annually let out at so much per beegah* for the ground, and so much additional for the Rose-plants ;-generally five rupees per beegal, and twenty-five rupees for the Rose-trees, of which there are 1000 in each

[^0]beegah. The additional expense for cultivation would be about rupees 8.8 ; so that for rupees 38.8 , you liave, for the season, one beegah of 1000 Rose-trees.
"If the season is good, this beegah of 1000 Rose-trees should yield one lac of Roses. Purchases of Roses are always made at so much per lac. The price of course varies according to the year, and will average from 40 to 70 rupees.
"The Rose-trees come into flower at the beginning of March, and continue so through April.
" In the morning early the flowers are plucked by numbers of men, women, and children, and are conveyed in large bags to the several contracting parties for distillation. The cultivators themselves very rarely manufacture.
"There is such a variety of Rose-water manufactured, and so much that bear's the name which is nothing more than a mixture of sandal-oil, that it is impossible to lay down the plan which is adopted. The best Rose-water, however, may be computed as bearing the proportion of 1000 Roses to a seer* of water: this, perhaps, may be considered as the best procurable. From 1000 Roses most generally a seer and a half of Rose-water is distilled ; and perhaps from this even the Attar has been removed.
"To procure the Attar, the Roses are put into the still, and the water passes over gradually, as in the Rose-water process. After the whole has come over, the Rose-water is placed in a large metal basin, which is covered with wetted muslin, tied over to prevent insects or dust getting into it: this vessel is let into the ground about two feet, which has been previously wetted with water, and it is allowed to remain quiet during the whole night. The Attar is always made at the beginning of the season, when the nights are cool : in the morning, early, the little film of Attar, which is formed upon the surface of the Rose-water during the night, is removed by means of a feather, and it is then carefully placed in a small phial; and day after day, as the collection is made, it is placed for a short period in the sun; and after a sufficient quantity has been procured, it is poured off clear, and of the colour of amber, into small phials. Pure Attar, when it has been removed only three or four days, has a pale greenish hue: by keeping, it soon loses this, and in a few weeks' time becomes of a pale yellow.
"From one lac of Roses it is generally calculated that 180 grains, or one tolah,t of Attar can be procured: more than this can be obtained if the Roses are full sized, and the nights cold to allow of the congelation.
" The Attar purchased in the bazaar is generally adulterated, mixed with sandal-oil or sweet-oil. Not even the richest native will give the price at which the purest Attar alone can be obtained; and the purest Attar that is made is sold to Europeans. During the past year it has been selling from 80 to 90 rupecs the tolah : the year before it might have been purchased for 50 rupees.
"At the commencement of the Rose season, people from all parts come to

[^1]make their purchases; and very large quantities are prepared and sold. There are about thirty-six places in Ghazeepore where Rose-water is distilled.
"The chief use the natives appear to make of the Rose-water is at the period of their festivals and weddings. It is then distributed largely to the guests as they arrive, and sprinkled with profusion in the apartments.
"I should consider that the value of the Roses sold for the manufacture of Rose-water may be estimated at 15,000 rupees a year, and from this to 20,000 ; and from the usual price asked for the Rose-water, and for which it is sold, I should consider there is a profit of 40,000 rupees. The natives are very fond of using the Rose-water as medicine, or as a vehicle for other mixtures; and they consume a good deal of the petals for the Conserve of Roses."

But Roses are grown for the purpose of manufacturing Rose-water in other countries beside Persia. At Provins, a town forty-seven miles S. E. of Paris, which has long been celebrated for its conserve of Roses, the French Rose has been cultivated; and in the environs of Paris, the Damask, and other kinds. In some parts of Surrey and Kent, in our own country, they are grown in considerable quantities-the Provence, Damask, and French kinds, indiscriminately. In the process of distillation, six pounds of Rose-leaves are said to be enough to make a gallon of Rose-water; but much depends on the stage in which the flowers are gathered, the best stage being just before full-blown.

The Rose has been valued in Medicine from the remotest times: it was so in the time of Hippocrates; and the Romans believed the root to be efficacious in cases of hydrophobia: hence probably the term 'dog-rose.' Many writers have attributed to it virtues which it does not possess ; though it is still used in medicine, and valued for its tonic and astringent properties. The hips of the Dog-rose, when reduced to pulp, are also used in pharmacy, to give consistence to pills and electuaries.

But to return more immediately to the history of the Rose.-This flower, having been considered as the emblem of innocence and purity from remote times, seems so far to have influenced the early Christian writers, as to induce them to place it in Paradise. It is well known, also, that the seal of the celebrated Luther was a Rose.

In Hungary our flower is held in great esteem. I am informed by a friend who has resided in that country, that it is customary with ladies of rank and fashion to take bouquets of Roses and go into the woods to bud the wild kinds which they may encounter in their rambles. It must be an agreeable and exhilarating task to go in search of Roses during the flowering season; for I am assured it is no uncommon thing to meet with the finest varieties blooming in the most unfrequented places.

In Holland the Rose seems to have made but little way, although it was from that country the most beautiful of the tribe-the Moss Rose-was first introduced to England, from whence it found its way to France. The transactions which took place in Holland during the Florimania associate no unpleasant ideas with
our flower. The Rose was without the pale. The Tulip, the Hyacinth, the Ranunculus, the Anemone-these, with a few of minor importance, were the pride of the seventeenth and eighteenth centuries: these were the flowers of Holland; and the enthusiasm with which they were cultivated there had rendered them popular in other European countries. Thus the Rose lay neglected. Its capabilities of improvement were not thought of, or unknown. The unlocking of its treasures was reserved for more recent times. The skilful and persevering individuals, to whose labours we are indebted for the choicest ornaments of the Rose Garden, still live to admire the productions of their genius, and to witness their favourite flower reigning without a rival in the Floral world.

Let us turn to France, a country naturally rich in Roses. According to Decandolle, she has no less than nineteen species growing spontaneously in her hedges, woods, and wilds. The chief among them is the Rosa Gallica, or French Rose, which has produced some of the most brilliant and regularly-formed flowers of the genus.

The country abounding in Roses, we should expect its poets would not fail to notice them ; and perhaps in no other language have so many beautiful comparisons been instituted, or so many verses written in their praise. Delille exclaims, "Mais qui peut refuser un hommage à la Rose?" (Who can refuse homage to the Rose?) And Bernard, Malherbe, Saint Victor, Roger, Leonard, and others too numerous to mention, have made it the subject of the most delightful strains.

Rapin, a French writer of the seventeenth century, gives a pleasing and ingenious tale, which I shall venture to insert.
" Rhodanthe, Queen of Corinth, having enamoured several princes with her beauty, and having disdained their proffers of homage, three of them, furious to see themselves despised, besieged her in the temple of Diana, where she had taken refuge, followed by all the people, who, dazzled by her extraordinary beauty, made her assume the place of the statue of the goddess. Apollo, enraged by the indignity offered to his sister, changed Rhodanthe into a tree which bore the Rose. Under this new form Rhodanthe is always queen, for she became the most beautiful of flowers. Her subjects pressed around her, seem still to defend her, metamorphosed, as they are, into prickly thorns. The three princes were changed ; the one into a butterfly, and the two others into winged insects, which, constant in their love, flutter without ceasing around their cherished flower." (La Rose, \&c., par Dr. Deslongschamps.)

There exists at the present day, in the village of Salency in France, a custom which is of very ancient date. As early as the sixth century, the Bishop of Noyon offered a prize of a crown of Roses, to be given yearly to the maid of the village who should have earned the greatest reputation for modesty and virtue. The villagers have the power of appointing her who shall receive it; and it is awarded with much ceremony and rejoicing.

It is the opinion of some of the French authors on this flower, that Roses were
cultivated far more extensively in France in former times than at present; which they arrive at from the statements made, by earlier authors, of the great quantities which were used on particular occasions. I have sometimes thought it a matter of surprise that the Rose should have taken the precedence of all other flowers in France at an earlier period than here, especially when we consider it is our national emblem, and that to the enterprise of English collectors Europe stands indebted for many species which were sent from this country to France and elsewhere. It was so with the Tea-scented, the Chinese Rose, the Banksiæ, the Microphylla, the Macartney, the Multiffora, and others.

But it was fashion paved the way for its general reception in France. At the commencement of the present century, the Empress Josephine acknowledged it as her favourite, and caused varieties to be collected throughout Europe, and brought to her garden at Malmaison. The late Mr. Kennedy was provided with a passport to go and come as he pleased during the war, in order that he might superintend the formation of that garden. The patronage of the Empress gave an impetus to Rose-culture. Establishments were soon formed, solely for the purpose, among the earliest of which were those of M. Descemet and M. Vibert, and the taste spread throughout Europe. It has been said that the collection of the former at St. Denis was destroyed by the English troops in 1815, but I believe they were removed to a distant part on the approach of the allied troops.

Monsieur Vibert, of whom we have just spoken, is one of the most celebrated cultivators among the French. He founded his establishment in the vicinity of Paris in 1815, at which time the only Moss Rose known in France was the red, or common one. He removed, a few years since, to Angers, where the climate is more favourable for the pursuance of that science to which he is entirely devoted. To him we owe the existence of those old favourites, Fanny Bias, Célestine, Ipsilanti, Aimée Vibert, Cynthie, d'Aguesseau, Matthieu Molé, Julie d'Etangés, Nelly, Blanchefleur, Cleopatra, La Ville de Londres, and a host of striped and spotted Roses. It is worthy of remark, that the latter, though much admired and cultivated in France, have never gained any great popularity here.

Among his more modern varieties, he enumerates Yolande d'Aragon, Princesse Clémentine, Eugène Duboys Dessauzais, Pluto, Feu Brillante, Columelle, Eliza Mercœur, Comtesse Murinais, Alice Leroi, Semiramis, la Négresse, and numerous others of which the merit is doubtful, or to which sufficient time has not been given to prove their various properties.
M. Laffay, another distinguished cultivator, owns a list of names no less worthy. Who, even among modern Rose cultivators, is not familiar with Archduc Charles, Fabvier, Brennus, William Jesse, Coup D'Amour, Duke of Devonshire, Duke of Cambridge, Victor Hugo? In originating modern varieties, M. Laffay has not been less successful. Madame Laffay, Coup d’Hébé, La Reine, Great Western, Comtesse Duchâtel, Dr. Marx, Lady Alice Peel, Comtesse Molé, Duchess of Sutherland, Le Commandant Fournier, Eugène Sue, La Superbe, and others, of nearly equal merit, have been raised in his garden. His residence
at Bellevue, a few miles from Paris, is a most enviable one: he lives surrounded with Roses and Chestnut-trees ; and his garden, although not extensive, commands a wide and most agreeable prospect. The soil is a stiff-I had almost said rankclay, and does not appear to have much labour bestowed on its amelioration.

Both M. Vibert and M. Laffay-the former especially-have been engaged in the cultivation of Roses for many years; and their enterprise and industry have brought them a full reward. They now cultivate more for amusement than for profit, confining themselves chiefly to the raising of seedlings, and the propagating of them for distribution. Having realized a comfortable independency, and attained to the highest eminence in their profession, they seem content to recline beneath the laurels they have so peacefully won. In the Preface to his Catalogue, published towards the close of 1846 , M. Vibert writes to this effect:-"My establishment, which I founded in 1815, and where Roses only are cultivated for sale, is the first of the kind which had existence in France. Thirty-five years' practice in this branch of Horticulture, with numerous and reiterated experiments made on every mode of cultivation; a long habit of seeing, studying, and of comparing the productions of this beautiful genus;-such are, at the least, the claims I have to public confidence. But I know all the obligations under which I remain, from the long and sustained kindness with which amateurs and the members of the profession have honoured me; and it is in reply to the honourable proofs of concern which have been so often addressed to me, that I am resolved not entirely to renounce my profession. To cover the expense of my garden, and to use my time sparingly, is the end which I propose to myself. Without seeking to extend my connections, I shall receive willingly orders from persons sufficiently reasonable to value what time and care it costs in the present day to obtain novelties really decided. I shall always continue the cultivation of my seedlings; I shall never renounce them; I shall rather increase them; and shall propagate but few others."
M. Laffay wrote to me last autumn: "C'est mon intention de cèsser le commerce. Mon projet était de quitter cet automne, et de m'installer dans le sud de la France, sous le climat des Orangers et Palmiers; mais mon Pére, qui est très âgé, ne veut pas que nous le quittions cet hiver. Ce qui dérange un peu nos projets d'émigration, qui ne sont que retardés. Aussi il est bien possible que je vous offre encore quelques bonnes Roses, sur-tout des Mousseuses Hybrides, car je me dispose à faire un semis de plusieurs milles graines de ces variétés. Ainsi je présume que ma Pépinière sera encore bonne à visiter quelques anneés. Je suis persuadé qu'a l'avenir nous verrons de bien belles Roses, qui effaceront toutes celles que nous admirons maintenant. Les Mousseuses joueront bientôt un grand rôle dans l'Horticulture."
" It is my intention to cease cultivating the Rose, in a commercial sense. My project was to do so this autumn, and to instal myself in the south of France, in the land of orange and palm-trees; but my father, who is very aged, wished that we should not quit Paris this winter. This deranges a little our plans of emigration,
although they are only retarded. But it is very possible that I may yet offer you some good Roses, especially of the Hybrid Moss, for I intend to make a sowing of several thousands of seeds of these varieties. Thus I presume that my seedplot will be worth visiting for some years to come. I am persuaded that in future we shall see many beautiful Roses, which will efface all those that we admire now. The Mosses will soon play a grand part in Horticulture."
It is somewhat remarkable, that while M. Vibert's operations have produced chiefly French and Provence, and, of late years, a few varieties of Moss Roses, the results of M. Laffay's labour have been chiefly visible among the Hybrid Chinese and Hybrid Perpetuals. We can only account for this by supposing each cultivator to have had his favourite group, which he strove to improve. I should think one half of the Hybrid Perpetual Roses at present grown have originated with M. Laffay.

The trade of cultivating Roses in France is in the hands of many individuals; and to visit that country with the view of forming a collection is (I speak from experience) a laborious undertaking. As far as my powers of observation serve me, I should think the establishments where they are grown for sale, in the neighbourhood of Paris, vary in extent from one to five acres; and there are others, situate in various parts of France, nearly all of like extent. It is thus that English amateurs, who may chance to visit any of them, are usually disappointed, owing to the contrast of their Rose Gardens with those of England, which are much more extensive. The most splendid collection in France is that in the Jardin du Luxembourg at Paris, which is under the superintendence of Monsieur Hardy. Most of the plants there are of some age, and flower most profusely in the season. It is true they look rather drawn; but when we consider their proximity to the heart of the city, it is surprising that they flourish so well.*
M. Hardy is no stranger in the Rose world: one of his varieties alone (Madame Hardy) would have sufficed to render his name popular; but he has been fortunate enough to raise many others of first-rate properties, some bearing the after appellation of "Du Luxembourg." And how could it be otherwise, when he has devoted so many years to the cultivation of this flower, and raised so many thousands of seedlings? He has never practised selling his Roses, but exchanges with his friends for other plants. The Roses in the Gardens of the Luxembourg are seen from the public promenades; and M. Hardy is very courteous to foreigners.

[^2]It is necessary to visit him early in the morning during the Rose season. The Rose amateurs of France, who are exceedingly numerous, and among whom Monsieur Desprez at Yèbles is highly distinguished, are enthusiastic in the cultivation of their favourite. So soon as they hear of any new variety, possessed of merit, they cease not to importune the raiser till he places it within their reach. Thus, in a letter received from M. Duval (the raiser of Charles Duval, Richelieu, and others) last year, in alluding to one of his new Roses, he says, "My stock of this beautiful Rose is very short; but I have been compelled to yield to the solicitations of my friends to offer it for sale this year."

While admitting France to have been more prolific than England in the production of new Roses, it is yet worthy of remark, that the English cultivators produce far handsomer plants than the French. Although I may be ranked among the former, I state this boldly; not from prejudice, nor from interest, but from a thorough conviction of its truth. If proof be needed, it may be found in the large exports of the French varieties, of English growth, to America and clsewhere. It may not be generally known, that some of the finest and most esteemed Roses in France do not succeed well in this country. On the other hand, many kinds are developed in far greater perfection here than there. The flowers of Roses generally cannot bear the scorching of a summer's sun: it is during our cloudy days, or when refreshed with a soft shower or a fall of dew, that the buds expand in fullest beauty.

I cannot help mentioning the jealousies which exist among some of the "Cultivateurs de Rosicrs" in France. I once visited the gardens of a noted grower, in company with a grower of less celebrity. I was surprised to see so little in these grounds, and to find the owner careless as to shewing what he possessed. Although exceedingly polite and talkative on other subjects, he was disinclined to speak on Roses. The mystery was cleared up by a letter received soon afterwards. In it were words to this effect: "If you visit my establishment again, which I beg of you to do, pray do not bring any French Rose grower with you, for I cannot shew them my rarities and beauties." This opened my eyes: I concluded I had not seen "the lions;" and an after visit proved this to be the case.

It has been said that little dependence can be placed on the transactions of the French growers; and I am sorry that my experience does not allow me to meet this assertion with a direct negative. Old Roses have been sent to this establishment under nen names, and charged at high prices. This, however, might occur by mistake, and seldom happens with the respectable growers.

But let us trace the history of the Rose in our own land. It is again matter of surprise to me that the Rose should not have been more extensively cultivated in England at an earlier date, when it is considered that it must have been brought prominently before the eyes of our forefathers in the wars of the Houses of York and Lancaster; or, as they are often termed, the wars of the Roses. But perhaps this was the very cause of its unpopularity. It might have been the remembrance of those sanguinary struggles, which, casting a halo around this
emblem of innocence and purity, made our forefathers shrink instinctively from cherishing a flower that recalled to mind scenes or tales of carnage and of woewhose leaves were once saturated with the blood of England's bravest sons.

It may not be considered out of place to give an account here of the origin of the Red Rose in the arms of the House of Lancaster. About 1277, Guillaume Pentecôte, Mayor of Provins, was assassinated in a tumult; and the King of France sent Count Egmond, son of the King of England, and who had assumed the title of Comte De Champagne, to that city, to avenge his death. After staying some time there, he returned to England, and took for his device the Red Rose, which Thibant, Comte De Brie, and De Champagne had brought from Syria some years before, on his return from the Crusades. This Count Egmond was the head of the House of Lancaster, and which preserved it in their arms. (L'Ancien Provins, par Opoix.)
The Damask Rose being the wild kind of Syria, it would hence appear that it was this gave rise to the Red Rose of the Lancastrians, and not the French Rose, as asserted by some. The White Rose was probably assumed by the Yorkists in contradistinction to the other.

Chaucer, our first great English author, who wrote in the middle and toward the close of the fourteenth century, alludes in his early pieces to the poetical worship of the Rose and the Daisy. And others of our early pocts were not unmindful of its charms. Harrington speaks of cheeks that shamed the Rose; Marlow, of beds of Roses, \&c.

Spenser, whose genius sheds a brilliancy over the age in which he lived, makes frequent mention of it. Every one is familiar with his fable of the Oak and the Brier, contained in the Shepherd's Calendar. Of the latter he says-

It was embellished with blossoms fair, And thereto aye wonted to repair The shepherd's daughters, to gather flowers To paint their girlands with his colours.
The poet makes the "bragging Brere" vaunt his own praises, to the disparagement of his neighbour the "goodly Oak."

See'st how fresh my flowers been spread, Dyed in lily white and crimson red?

The mouldy moss which thee accloyeth
My cinnamon smell too much annoyeth.
[Shepherd's Calendar, Eclogue 2.
Notwithstanding the poet speaks elsewhere of the "fragrant Eglantine," I am disposed to think the Sweet Brier is the plant he has here in view, although the glow of his fancy tinges its flowers with a purer and a deeper dye.

Again, in the Shepherd's Calendar (Eclogue 4) we meet with the following:
See where she sits upon the grassy green,
(O seemly sight!)
Yclad in scarlet, like a maiden queen, And ermines white;

Upon her head a crimson coronet,
With damask Roses and daffodillies set:
Bay-leaves between,
And primroses green,
Embellish the sweet violet.
In the next verse he speaks of
The red Rose medled with the white yfere.
In the "Fairy Queen," especially in the Second Book, he makes several allusions to it, and also in the Epithalamion.

Shakspeare often introduces the Rose in his writings. In the following passage he compares the extinction of life to the plucking of a Rose:

> When I have plucked thy Rose,
> I cannot give it vital growth again :
> It needs must wither:
> I'll smell it on the tree.
> [Othello, Act 5 .

In one of his Sonnets, the comparisons of the greatest English poet are obviously so much to the advantage of our favourite, that I cannot help inserting it.

> O how much more doth beauty beauteous seem
> By that sweet ornament which truth doth give!
> The Rose looks fair, but fairer we it deem
> For that sweet odour which doth in it live.
> The canker blooms have full as deep a dye
> As the perfumed tincture of the Roses ;
> Hang on such thorns, and play as wantonly,
> When summer's breath their masked buds discloses :
> But, for their virtue only is their show,
> They live unwooed, and unrespected fade;-
> Die to themselves. Sweet Roses do not so :
> Of their sweet deaths are sweetest odours made.
> And so of you, beauteous and lovely youth,
> When that shall fade, my verse distils your truth.

I have made the above quotations to shew that the Rose was not unregarded by the early English poets; but were I to pursue this plan of quoting all the agreeable things which our poets have written of it, that matter would occupy the whole volume; for who among them has not heaped upon it the riches of his fancy?

In every love-song Roses bloom.
From the allusion of Chaucer, it is evident the Rose was a favourite flower; at least among the poets in England, some centuries since; and this I should have thought a sufficient passport to public favour. That they did not owe their love and respect for this flower to the existence of superior garden varieties, or to an interest displayed in their cultivation by their countrymen, will, I think, soon be sufficiently evident. But the wild forms of Roses are beautiful; and they probably gave rise to these effusions. Or the poets might owe their veneration for
them to the writings of the ancients, with which they were familiar. But we must quit the land of poetry.

Lobel, who had a garden at Hackney, and who was appointed Royal Botanist by James the First, published, towards the close of the sixteenth century, a work, entitled "Plantarum seu stirpium Icones." In this work he describes ten species.
"In 1622, Sir Henry Wotton sent from Venice, to the Earl of Holderness, a double yellow Rose of no ordinary nature, which was expected to flower every month from May till almost Christmas, unless change of climate should change its pro-perties."-Johnson's History of Gardening. This most probably was the old double yellow Rose, so notorious for refusing to unfold its blossoms in our less propitious climate. With regard to its flowering from May till Christmas!-this no doubt was an embellishment, to which an enthusiastic collector may be readily excused for giving ear.

Parkinson, an early English writer on Gardening and Botany, in his "Paradisus," published in 1629, speaks of the "white, the red, and the damask," as the most ancient in England. He enumerates twenty-four varieties; and speaks of others, but does not specify their names. He treats, in a separate chapter, of the propagation of Roses by budding and by seed. The red Rose of which he here speaks was no doubt the Cabbage, or Damask; and the white one, an old variety of Rosa Alba. In how many old English gardens do we find trees of the applebearing Rose still occupying a conspicuous position, and whose ancient appearance denotes them to have withstood the changes of many a by-gone year. Sometimes, indeed, the scathing hand of time has severely marked them, and they are hastening to decay.*

There is now before me a work published on Gardening in 1654, entitled "The Countryman's Recreation, or the Art of Planting, Graffing, and Gardening, in three Books." In a work with such a title we might expect to find a variety of flowers treated of. But no: fruit-trees seem then to have been the chief ornament of country gardens: the utile was preferred to the dulce: in truth, the attention of our forefathers seems to have been chiefly directed towards the " making of good cyder," and the " keeping of plummes"! In the above-mentioned work there is but one flower named, and that is the Rose! Here is the article as it appears in the original:

> "To Graffe a Rose on the Holly.
"For to graffe the Rose, that his leaves shall keep all the year green, some do take and cleave the holly, and do graffe in a red or white Rose-bud; and then put clay and mosse to him, and let him grow. And some put the Rose-bud into a slit of the bark, and so put clay and mosse, and bind him featly therein, and let him grow, and he shall carry his leaf all the year."

This is a recipe for obtaining evergreen Roses! Satis superque. Must we

[^3]infer that practical men in those days held tenets such as these, or that they were merely the effusions of the brain of some would-be savant in horticultural matters? As gardening was then a practical art, we cannot suppose the former to have been the case, since the very first experiment would throw a doubt on such a proposition, which the failure of erery subsequent attempt would confirm; and thus the most credulous would soon be undeceived. The latter would certainly seem the juster inference. Without wishing to say any thing derogatory to the capabilities of our forefathers in the art, we certainly were not awre that the sun of Horticultural science had reached the meridian so long since as 1654 , and feel some concern, as well as humiliation, that nearly two centuries should elapse without our profiting by so wonderful a discovery! We cannot forbear quoting certain lines of Virgil, met with in our school days, and to which, perhaps, the above writer was indebted for his idea :

> Inseritur vero et foetu nucis arbutus horrida;
> Et steriles platani malos gessere valentes:
> Castaneæ fagus ornusque incanuit albo
> Flore piri, glandemque sues fregere sub ulmis.
[Georg. lib. ii. ver. 69—72.*
Such are the workings of the imagination, that the black Roses produced by grafting on black-currant bushes, the blue Roses of the Moors, and the oft-talkedof yellow Moss, are already before our eyes! Could we but retain them there! But, alas ! this were impossible. Creatures of the imagination, a moment's sober reflection dissipates you in thin air!

But to be serious. As late as 1762, Linnæus appears to have acknowledged only fourteen species. In an edition of Miller's Gardeners' Dictionary, published in 1768 , thirty-one species are described. It was only at the close of the last century, and the dawning of the present, that the garden varieties of Roses were really recognised and esteemed. In 1789 the Chinese Rose was introduced; and in 1810 China furnished us with the Tea-scented also. At this period nearly all the varieties known bloomed in summer only: there were few autumnal Roses. In 1812 came forth that exquisite variety, still unsurpassed, the "Rose du Roi," or Crimson Perpetual, which was raised in the Royal Gardens of St. Cloud, then under the care of Le Comte Lelieur.

In 1799 Miss Lawrence published "A Collection of Roses from Nature," which contained ninety coloured plates, including many of the most beautiful species and varieties then known. In 1820 the "Rosarum Monographia," by J. Lindley, appeared; in which seventy-eight species, besides sub-species, are described, and thirteen of them figured. This work is of a scientific character,

[^4]and the system there adopted has been followed, more or less, by many subsequent writers on the botany of the Rose. About this time the types of the Bourbon and Noisette Roses appeared, and in a very short period the varieties were increased and improved beyond what the most sanguine could have anticipated. Loudon, in the Encyclopædia of Gardening, published in 1822, says, "The lists of the London and Paris Nurserymen contain upwards of 350 names." "New varieties are raised in France and Italy annually. L. Villaresii, Royal Gardener at Monza, has raised upwards of fifty varieties of Rosa Indica, not one of which has, as far as we know, reached this country. Some of them are quite black! others shaped like a Ranunculus; and many of them are highly odoriferous." With regard to those quite black, as none of them have yet reached this country, it may be presumed the writer made this statement on the authority of the continental growers, whose vivid imaginations often lead them to portray in too glowing colours any new production.

It may be thought necessary that I should allude to the firm with which I stand connected. The Nursery at Cheshunt has long been famous for its Roses: it was so in the time of Mason. It gained considerable renown from the continual flowering of a plant of the old double yellow Rose (R. Sulphurea), which had become established on a west wall about the close of the last century. Flowers from which to draw were sought from various parts of the country. The plant produced them with such regularity, and in such gay profusion, that an amateur eventually purchased it to transplant to his seat in Yorkshire; and he did this with considerable success ; for although of great size, it flourished, and continued to flower well.

In Sweet's Hortus Britannicus, published in 1827, there are 107 species given, and 1059 varieties; the greater portion of the latter being French or Gallica Roses.

In 1829, M. Desportes and M. Prevost each published in France a Catalogue of Roses. In the Catalogue of the former cultivator above 2000 varieties are described. These Catalogues, with others which appeared in England and France, both before and after this time, were calculated to infuse fresh ardour into the minds of the improvers of this charming race of plants, and at the same time to spread a taste for its cultivation.

The Rose amateurs of England are so numerous in the present day, that it were almost impossible to enumerate even those who possess collections of great merit. A few, however, occur to me, which have especial claims to notice as being the earliest of any extent.

At Dane-end, near Munden, in Hertfordshire, the seat of Charles S. Chauncey, Esq., was formed one of the earliest and best collections; and to which this county is no doubt indebted, in some degree, for the celebrity she enjoys for Roses. Mr. Milne, who is gardener at the above place, has originated a Seedling Bourbon, which he calls Beauty of Munden.

Mr. Sabine formed a collection of the species, some years back, at North

Mims, Herts ; and a vast number of them were once growing in the Horticultural Gardens at Chiswick.

About twenty-five years ago, Mrs. Gaussen had formed a Rosarium at Brookmans, in Hertfordshire, which contained many varieties. The form of the ground it occupied was an oblong square, walled in, the walls covered with climbing Roses and other plants. There was a variety of beds formed and planted with much taste: in the centre stood a temple covered with climbing Roses. The whole was blinded from distant view by a wide laurel bank; and the surprise created on suddenly entering was most agreeable, and the effect magical. "Here," says an eminent cultivator with whom I was in conversation the other day, "I first saw the Rose Ruga, which was then recently introduced; and I remarked to Mr. Murdoch, who was gardener there, that it was a hybrid of the Tea-scented. It was beautifully in bloom, and struck me at the time as a gem of the first water. I had not at this time met with any of the Sempervirens Roses; the first of which, the Alba Plena, I saw in flower soon afterwards, on a wall at Dropmore, the seat of Lady Grenville."

The next collection which demands our notice is that at Broxbournebury, the seat of George J. Bosanquet, Esq., where there are at the present time a great number of very fine specimens. In addition to all the old and esteemed varieties, there are in cultivation here most of the modern ones; such having been added as they were offered for sale by the raisers or their friends. I believe this to be the best private collection of Roses in England; at least, I know of none to surpass or equal it. But of this Rose-garden we shall have occasion to speak more at large hereafter.

It might have been foretold, that the rare beauties the gardens above mentioned contained-whether viewed on the plants, arrayed in the simple loveliness of nature, or when dressed for the tables of the Floral fêtes-would captivate all lovers of flowers, and spread a taste for their cultivation. And such was really the case. They became known and their worth appreciated. Florists and amateurs vied with each other in the cultivation of their favourite, each desirous of producing it in the most perfect state. Its characters were thus fairly developed; improvement followed on improvement; and it soon became universally popular. And why? Shall Anacreon answer? 'Pódov 今̂ фépıбтov $\alpha^{\alpha} \nu \theta \omega \nu$, "The Rose is the most beautiful of flowers."

## CHAPTER II.

## ON LOCALITY AND SOILS; AND THE IMPROVEMENT OR ADAPTATION OF SOILS FOR ROSE-CULTURE.

$\mathrm{I}_{\mathrm{F}}$ we were called upon to select a spot as best suited for the cultivation of Roses, we should seek one at a distance from large towns, that we might secure the advantages of a pure air. It should lie open to the south, and be so far removed from trees of every description, that their roots could not reach the soil of our Rose-beds, or their tops overpower us with shade, and prevent a free circulation of air. If, in addition to this, we could choose our soil, that preferred would be a strong loam; if rich, so much the better; if poor, we would enrich it by the addition of manures. It is generally known, that the Dog-rose delights in a stiff, holding soil; and it is on the Dog-Rose the choice garden varieties are usually budded. We do not intend by this to recommend soils commonly termed clayey, for in such there is often too great a deficiency of vegetable substances; lighter soils, too, are found better suited for such kinds as thrive best grown on their own roots; but this may be managed by the addition of a little light turfy loam, peat, or leaf-mould, at the time of planting. An open, airy situation, and a stiff loamy soil, are, we say, what we should prefer, were our choice of locality and soil unlimited. With these at our command, we should expect to carry Rose-culture to perfection. "But," says the amateur, "all gardens must have Roses, and how few are there thus favourably circumstanced. Many are close to large towns, where the air is rendered impure by the clouds of smoke constantly streaming into it. Others are of small size, and are often hemmed in by trees on all sides; on this with a neighbour's favourite chestnuts; on that with a group of sombre-looking firs ; and on another with a row of towering elms. And although we may think it not right that our less majestic denizens should suffer at their hands, we have no help for it. They have their pets as we have ours. They find as much pleasure in the blossoms of their chestnuts, in the agreeable shade of their elms during the sultry months of summer, or by the privacy afforded them by the impenetrable darkness of their fir-trees, as we do in the perfect form and varied tints of our Roses. We cannot rid ourselves of their shade. We have no right, indeed, to wish to do so. But we might not hesitate to dock their roots, should they, in their peregrinations,
enter our domain, to gormandize on the provision made for our favourites. This, we think, would be justifiable. We are acting in self-defence. They are robbers, and deserve punishment, although it must not be such as to do them permanent injury. Then, again, as to soils: some are sandy; others are clayey, wet, cold, and altogether uncongenial to vegetation. In a word, we cannot always suit our gardens to your Roses: your Roses must therefore be brought to suit our gardens."

Those who are free from all these annoyances may think themselves fortunate. The number of complaints of this kind received from amateurs possessing small gardens, which they make their chief source of relaxation and amusement, satisfy us they are great. It must be admitted, that localities are often unfavourable, and hardly capable of improvement. With this, then, we must endure, and seek the remedy in the choice of varieties; selecting such as our own experience, or that of our friends, point out as succeeding best under such circumstances. It is well known that some kinds will grow and flourish where others will scarcely exist. Were this fact taken advantage of by those who plant in unfavourable situations, or unkindly soils, doubtless less failures in Rose-culture would ensue. But it may be said, Some of the most delicate in habit are the most beautiful of Roses, and how can we dispense with such? That the varicties possessed of the most bewitching forms and tints are most difficult of culture, is, to a certain extent, true; but we opine, that a Rose, which will flourish and blossom in a doubtful situation, or in an unfriendly soil, is greatly to be preferred for such, to one which would only exist there as an unhealthy plant, though the latter were greatly its superior in point of beauty. I have known instances in which varieties of the most delicate growth have been selected, time after time, to occupy the most unfavourable situations; and this against all remonstrance, and the knowledge of the cultivator, bought by experience, that they will not succeed. Varieties are often chosen and planted, without paying sufficient attention to their aptitude for the purpose or position they are wanted for. They are chosen because admired most-because they are the most beautiful. Now what are the consequences? That which should yield pleasure, produces, by constant failure, indifference or disgust ; and their culture is abandoned. This is to be lamented; for if circumstances are unfavourable for the cultivation of particular varieties, others, that are likely to succeed, should be chosen. And the amateur need not be altogether without his favourite kinds. If unsuited for out-of-door culture in some places, they may be grown to perfection in pots, under glass. In this manner, with due care, they always succeed well; and, by the increased beauty of their foliage and flowers, fully compensate for the additional attention paid to them. I here allude only to such as are very susceptible of frost, or of weak and delicate growth, confining the suggestion to no one group in particular, nor excluding varieties of such character from any group. If an illustration be needed, we may instance Le Grand Capitaine and Coquette de Montmorency (Bourbon Perpetuals), Eliza Sauvage, and several others of the Tea-scented. These, and the like, will not thrive in unfavourable situations or unkindly soils.

And whatever the situation may be, they assume a decidedly improved appearance when grown in a frame or greenhouse. An unfavourable locality or soil should never deter the lover of Roses from entering on their cultivation; for such is the diversity of character of the varieties belonging to the genus, that some may be found suited to, or capable of flourishing in, the least desirable localities; and the soil may be improved, or dug out, and the beds re-filled with prepared soil. For the encouragement of those whose situation may be decidedly unfavourable, it may be stated, that a great part of the Roses grown at this establishment are sent into the neighbourhood of London and the large manufacturing towns in England and Scotland. And it is pleasing to see, in their perfect production there, how far the art of culture can be brought to triumph over circumstances. In such situations, the practice which seems to have been attended with the most marked success, is that of syringing the plants frequently with clean water, which frees the leaves of the impurities which settle on them. Thus, it will be seen, none need despair of securing a moderate share of success in, and of realizing the pleasures afforded by, the cultivation of this, richly-varied flower.

We have said that soils are capable of improvement, and may suppose that every one has his garden under his own controul, so far as improvement goes. To this point let us now direct attention.

In the first place, if our soil be wet it should be drained. Roses will never flourish in a soil naturally wet. As few plants will, if a garden be of this nature, it would seem desirable, before attending to other improvements, to drain it wholly and thoroughly.

Let us suppose we have a piece of clayey undrained land, which is the best our limits contain, and on which we are about to form a Rosarium. We defer planting the Roses till spring, availing ourselves of the autumn and winter for the amelioration of the soil; unless, indeed, there has been an opportunity of working it during the previous winter and summer, when autumn planting is thought preferable. There is not, however, always an opportunity of doing this; and we will suppose it taken in hand in October, just after a crop has been removed from it. Our first object is to secure a perfect drainage. This may be done by digging trenches two and a half to three feet deep, at about five yards apart, and laying draining tiles in at the bottom. In digging the trenches, they may be cut sloping from eighteen inches at top to two inches at the bottom. We must find out the lowest ground, and secure a gentle fall from the higher ground, that the water may run away freely.

If we do not choose to lay drain-tiles in the trenches, bushes may be put there, or stones, brick-bats, clinkers from the furnaces, broken into moderate-sized picces, or any description of rubble. These will accomplish the same end, if laid sufficiently deep, though not so perfectly, as the soil will find its way amongst thena in course of time, and choke up the passages through which the water should find egress. Having laid the soil dry, the next object should be to expose it, as much (Div. I.)
as possible, to the fertilizing influences of the sun and air. To accomplish this, the ground should be dug one spit deep, or more; but instead of laying it level at the surface, let it be thrown up in ridges in the roughest manner possible. In this state it may lie till the depth of winter, fully exposed to the action of sun, air, rain, and frost. The surface of the ridges will gradually crumble down, and the soil become pulverized. Now for the next step. What description of soils or manures can be brought to bear upon it with the greatest prospect of improvement? Chalk, lime, peat, sand, and burnt earth will improve it; and stable manure, with any decayed vegetable substances, the refuse of the garden, may be added to advantage. And now is the time to apply these. First level the soil, and lay on the top a good dressing of any of the above soils that may be accessible, or thought most suitable. Having done this, in the next place trench the ground two spit deep, well mixing these foreign matters with the staple in the operation. The ground is laid level this time, and when finished, the places where the Roses are to be planted should be marked out, and the holes dug, the earth taken out being laid up in ridges round their sides. The holes should remain open till the time of planting, that the soil, placed in immediate contact with the roots, may become further mellowed. From the end of February till the end of March is a good time for spring planting, choosing an opportunity when the ground works well.

But some gardens are so situated that it is not easy to drain them. A makeshift system may be adopted in such cases. The soil may be thrown out of the walks in the immediate vicinity of the plants, to a good depth; and loose stones, or rubble of any description, be placed at the bottom, covering with bushes, over which the soil may be restored. Among the substances mentioned above as calculated to improve wet or clayey soils, is burnt earth. Of its value in the improvement of such for Rose-culture I have been an eye-witness; and in a Letter published in the Gardeners' Chronicle in 1844 (p. 67), I gave an account of the results of its application to some Dwarf Roses. Subsequent experiments have increased my faith in it: and as the burning of earth is considered by many to be a difficult process, I shall give a succinct account of the plan pursued here.

Earth may be burnt at any season of the year. It has been the custom here, for some years, on the decline of spring, when the operations of pruning, grafting, \&c. are ended, instead of suffering the rough branches to lie about, presenting an untidy appearance, to collect them in a heap. A wall of turf, about three feet high, of a semi-circular form, is then built round them. The branches are set on fire, and when about half burnt down, seed-weeds, and such rubbish as collects in every garden and will not readily decompose, are thrown on the top, and earth is gradually cast up as the fire breaks through.

During the first two or three days great care is requisite to keep the pile on fire. Here is the point where many fail. They allow the flame to break through and expend itself before the heap is thoroughly kindled. Constant watching is necessary at this juncture. As the fire breaks through, a layer of bushes and weeds should be added, and then a layer of earth. Follow up this plan, and the fire
will spread through the whole heap; and any amount of earth may be burnt, by continually adding to those places where the fire appears the strongest. The soil burnt here is the stiffest loam that can be found within our limits, and which is of rather a clayey nature; also turf from the sides of ditches and ponds, in itself naturally sour and full of rank weeds.

Burnt earth has been found beneficial in every instance where applied. In black garden mould, rather wet, in which peach-trees were disposed to sucker and canker, despite of the use of various manures, two or three annual dressings of it appear so to have altered the nature of the soil, that they now grow clean, vigorous, and healthy, are free from suckers, and produce roots completely matted with fibre. The like success has attended its application to various other trees.

But to our Roses. In the summer of 1842 six beds of Tea-scented Roses were manured with the following substances: 1. bone-dust ; 2. burnt earth; 3. nitrate of soda; 4. guano ; 5. pigeon-dung; and, 6. stable manure, thoroughly decomposed. The soil in which they grew was an alluvial loam. The adjacent fields, which are of the same nature, grow large crops of wheat and potatoes. The particles of the soil run together after rain, presenting a smooth cemented surface; the soil, in dry weather, becoming hard and harsh. But for the results. The guano produced the earliest visible effects, causing a vigorous growth, which continued till late in the season; the foliage was large, and of the darkest green, but the flowers on this bed were not very abundant; the shoots did not ripen well, and were consequently much injured by frost during the succeeding winter. The bed, manured with burnt earth, next forced itself into notice: the plants kept up a steadier rate of growth, producing an abundance of clean, well-formed blossoms; the wood ripened well, and sustained little or no injury from the winter's frost. The results attendant on the use of the other manures were not remarkable: they had acted as gentle stimulants; the nitrate of soda and bone-dust least visibly so, although they were applied in the quantities usually recommended by the vendors.

The beds of Roses were all planted at the same date, and in the same soil ; and there was no undue advantage given to any one kind of manure. The fertilizing influences of the burnt earth were no doubt due partly to its drying and opening the soil, thus rendering it more permeable to air; and partly to the power it is said to possess of fixing the ammonia conveyed to the soil by rain. But further, earth is reduced, by burning, to its inorganic constituents, and thus becomes a concentrated inorganic manure, from which many soils benefit largely; and the ashes of the wood, and other substances used in burning, although of small amount, would add to its value under this point of view. A portion of the earth comes from the heap red and hard, and a portion black or dark brown. The latter, which may be more correctly called charred earth, is highly beneficial to most soils. I think burnt and charred earth the best manure that can be applied to wet or adhesive soils, and would advise all who cultivate such to use it.

Peat soils, although not of the best kind for Roses, are found to grow them tolerably well. For the improvement of such, if wet, the first effort should
he to drain them. After this, stiff loam, or pulverized clay and burnt earth, may be brought upon the surface, digging two spit deep, and well mixing the foreign substances with the natural soil, as advised in the improvement of clay soils.

The worst soils for Roses are those of a sandy or gravelly nature. In such they often suffer fearfully from the drought of summer, scorching up and dying. Soils of this kind are sometimes bad beyond remedy. The best plan to pursue under such circumstances, is, to remove the soil to the depth of about twenty inches, as the beds are marked out, and fill up again with prepared soil. Twothirds loam-the turf from a pasture, if attainable-and one-third decomposed stable manure will make a good mixture. If a strong loam is within reach, choose such in preference to others; and if thought too adhesive, a little burnt earth or sand may be mixed with it. A good kind of manure for mixing with the loam is the remains of a hot-bed, which have lain by for a year and become decomposed.

Opoix, a French apothecary, whom we have previously quoted, attributes the superiority of the Roses grown for medicinal purposes, in the neighbourhood of Provins, to peculiar properties of the soil, which contains iron in considerable quantity. We are told that the selection of inorganic manures for plants may be fixed upon by an examination of the composition of their ashes.* We know, by the research of chemists, that the petals of the Rosa Gallica contain oxide of iron; and I have long thought that the iron which abounds in the soil of one of the nurseries here is an ingredient of importance in the culture of Roses. I would not say that it is indispensable, but beneficial.

On turning up the soil, its ferruginous nature is in places distinctly seen. In an undrained field adjoining the Nursery the water frequently collects on the surface in the form of a thick brown liquid, like so much rust, which is covered here and there with a film, on which the sky is distinctly mirrored. When the soil in this nursery is hoed or forked, the rapid increase of growth of vegetation is striking beyond measure. The practice is known to promote growth in all soils; but the extent to which it does so here, is, I think, due to the oxygen of the air changing the iron contained in the soil from a substance pernicious to vegetable life, into one favourable to its development.

We have hitherto been speaking of the improvement of soils preparatory to the formation of the Rosarium, or beds of Roses. But it is often desirable to improve the soil in beds already formed, and which probably have existed as such for a number of years. This is usually done by the addition of animal or vegetable manures, which are very good so far as they go, but are not in every case all that is required. Roses increase in bulk every year, and draw inorganic as well as organic matter from the soil. Although a portion of this may be returned by the fall of the leaf in autumn, and by the manures employed, yct a great deal is deposited in the branches and stem: and when we consider what a quantity of branches we cut from some Roses, and carry away every pruning-season, it will appear reasonable that we may, in the

[^5]course of years, impoverish the soil as regards its inorganic constituents, and yet leave it rich in vegetable matter. Thus, we think, every two or three years a dressing of chalk, lime, soot, or like substances, would prove highly beneficial to the beds of the Rosarium.

But let it be remembered, that if the soil is wet manures are of little value: often, indeed, they sour in the soil, and are worse than useless. In all such cases, then, the first effort must be to lay the soil dry. After this, add such manures as the character of the soil may point out as likely to prove most beneficial. Animal and vegetable manures of all kinds may be used, but not in a fresh state; they should be well pulverised: for Roses, though delighting in a rich soil, dislike green manures more than most plants. In heavy soils a good dressing of chalk, peat, burnt earth, or sand may be used; not to the preclusion of, but in addition to, the animal or vegetable manures. In light soils, especially such as are of a gravelly or sandy nature, stiff loam may be applied to advantage. These substances may be thrown on the surface of the beds with the usual manures, and forked in at the same time.

We would remark here that stable manure, which is excellent in most cases, and the kind in general use for Roses, is not of the best description for light soils. Its tendency is to render them still lighter; and if it can be dispensed with, we think it desirable to do so. Manures should be applied here in a more concentrated form. Cow-dung is excellent, especially for the Tea-scented Roses; and pigeon-dung, rabbit-dung, and night-soil, are all great improvers of light soils. The unpleasantness attending the preparation and use of night-soil may in a great measure be done away with by pursuing the following plan. A basin, or reservoir, should be formed on the ground, to hold a given quantity. In the bottom of this, loam may be thrown, heavy or light, turfy or not, as may be at our command, or whichever is thought best suited to the character of the soil we intend to manure. Upon this the night-soil is lowered from the cart, and a sufficient quantity of loam thrown in to absorb the whole. The heap should then be covered over closely with a layer of earth, about a foot thick, and remain closed for about six months. It may then be broken up, more or less, according to its state, mixing dry soil, or ashes, or burnt earth with it in the operation, andcasting it up in ridges. About a month afterwards it may be turned over again, that the night-soil may be well mixed with the loam. In spring or autumn it may be carried to the places where required, and forked in as other manures; or it may be scattered over the beds immediately after they are forked in spring, when it will be washed down by the rains. We cannot conceive of any description of manure to surpass this, applied in the latter manner, to Roses on light soils. By its use, we administer at the same time a cool and rich fertilizer, and a substance calculated to be of permanent benefit to the soil.

It may be thought that guano should be a good manure for Roses on cold and poor soils. It probably might prove so if used sparingly, and in conjunction with vegetable manures. I do not, however, think guano the best thing for Roses in
(Div. I.)
$f 3$
the generality of soils. It certainly increases the vigour of a plant, but seems to act more favourably on the foliage than on the flowers. It may be said this is due to the use of it in excess. But this I am not disposed to grant. In the spring of 1846 I scattered guano, in variable quantities, over some newlyforked beds of Roses, just as the buds were pushing forth. The soil where this experiment was made is a dry loam, rather stiff, of excellent staple, but poor. The subsoil, to the depth of twelve feet, is a yellow loam or brick earth. Below this is gravel. In every instance where the guano was applied the growth was more vigorous, and the foliage developed of extraordinary richness and beauty; but, mark! it was at the expense of the flowers. Such were the consequences attending its use to plants in full health on one soil: on soils otherwise constituted the results might be different.

Roses should have manure applied to them at least once a year. It should be in a well pulverized state, and may be dug in, when the borders are dug, in spring; or laid on the surface afterwards, to be washed in by the rains. When manure is applied in such state as to be capable of yielding immediate nourishment to a plant, spring would seem the better season to apply it. The roots are then in full action, and every shower of rain places an abundant supply of food within their reach. If manure is applied in autumn, a great part of its nutritive properties must be carried beyond the reach of the roots by the frequent and heavy rains of winter.

## CHAPTER III.

## IREMARKS ON THE FORMATION OF THE ROSARIUM, AND ON THE INTRODUCTION OF ROSES TO THE FLOWER GARDEN.

In the formation of the Rosarium, it appears to us that the simpler the forms of the beds the better. The plants of which it is composed are for the most part budded on stems, and decidedly artificial objects; and parallelograms, squares, circles, ovals, and other regular figures, are in perfect harmony with the character of the plants; admit of the most perfect arrangement; and display the Roses to greatest advantage.

When the Rosarium is intended to be of large or even moderate size, there should be two compartments ; the one for the summer kinds exclusively, the other to contain the autumnals. The boundary of each may be defined by planting a single row of Pillar-Roses at intervals of a yard apart. When they reach the beight of five feet, each alternate plant may be removed, and small chains be fixed from pillar to pillar, hanging in graceful curves the entire length of the line. Over these some of the branches may be trained to form elegant festoons, two or three shoots being allowed to ascend the pillar until they reach such height as circumstances or taste may point out as desirable.

If Pillar-Roses are not approved of to form the line of demarcation, the same end may be accomplished by a rustic fence, which should be covered with some particular kind of Rose suited for the purpose. It should be a good, free flowering, hardy variety, whether a summer or autumn bloomer: if the latter is preferred, the Bourbon or Noisette offer the best kinds. Or again, this would seem a fitting opportunity of introducing the Sweet-briar, which should abound in cvery Rosarium; for the delicious fragrance of its young leaves in the earliest of'spring, the delicacy of its blossoms in summer, and the gay appearance of the scarlet hips it produces in the autumn, must recommend it to every observer.

The walks of the Rosarium should be invariably of grass, which sets off the plants, when in flower, to much greater advantage than gravel. Grass walks are objected to by some because unpleasant to walk upon early in the morning, or after a shower of rain; but they give such a finish to the Rosarium, and lend such a freshness and brilliancy to the flowers, that it were a pity to forego these advantages solely on this account. And if the grass is kept closely mown, the force of this objection is greatly abated.

When the walks are of grass, it is perhaps not desirable to plant edgings to the beds. When they are of gravel, it is decidedly necessary to do so; and Box, slate, or fancy tiles may be used. In many instances, too, the Pompon and Fairy Roses may be introduced as edgings, with a very happy effect, to form a complete hedge, of less than a foot in height, covered with their miniature blossoms; the one variety blooming in summer only, the other throughout the autumn.

It is desirable that the Rosarium should have a raised spot in its vicinity, from which a bird's-eye view of the whole may be obtained during the season of flowering. A mound of earth thrown up is the simplest plan; and some burs and stones may be placed upon the surface. The sides of the mound may be planted with Ayrshire, Sempervirens, and other running Roses, or climbing plants of various kinds: on the top may be formed a Rose Temple, or a cluster of PillarRoses. From this spot we obtain, in the flowering season, a view of the Roses en masse, as they lie beneath us, the effect of which is agreeable and striking; and indeed every one can appreciate the beauty of the picture thus submitted to him. It needs neither the knowledge of the Florist nor the refined taste of the connoisseur; the beauty and effect of the coup d'oil thus obtained is acknowledged alike by the skilled and unskilled in these matters. This we regard as one important point gained in the formation of the Rosarium ; but there are others deserving of attention.

When the Amateur forms a Rosarium, he does not usually plant for effect: he views his plants individually, rather than collectively. And we should suppose that, to meet his approbation, the Rosarium should be so formed that he may attend to, and examine, each plant, without risking an injury to the rest. He may be delighted with viewing his collection as a whole; and, in addition to this, the knowledge that his friends, who may be less skilled in floriculture than himself, would derive the highest gratification from such a sight, would induce him not to neglect this point. But he finds greater pleasure in looking at his favourites separately. What would be tedious and uninteresting to them, is to him highly amusing. Each of his plants has a name by which he distinguishes it. He regards them as so many friends or acquaintances, every one of which has a clain upon his attention. He therefore wishes them so disposed that he may attend to each in turn, without annoying the rest. How often have I seen, in large beds of Roses, the soil round a favourite tree trodden as hard as a gravel walk! I have also seen the adjoining trees, whose beauty was only dimmed by the presence of a brighter gem, seriously rubbed and broken, being altogether unheeded in the eager haste to inspect more inviting specimens.* It would seem desirable,

[^6]then, that the beds be so formed that each plant may be seen from the walks. No one who really loves Roses will be content with viewing a plant placed in the back of a bed some six or seven yards from a walk. To fully appreciate its beautiesto be satisfied-one must have it directly under the cye, or how can he mark the exact colour, form, and various characters, and last, but not least, inhale its perfume? If the plant is so placed that we cannot do this from the walks, the beds must be trampled on; the temptation is too great; we cannot resist it.

When forming a Rosarium, it is at the option of the cultivator to set apart a spot for growing plants from which to save seed. If he desire to raise seedlings, this should be done; for the plants become impoverished by the ripening of the seeds, and therefore those from which he wishes to obtain large and perfect flowers should never be suffered to seed. He should select the sunniest spot in the garden in which to plant the seed-bearers, in order to secure every possible advantage for accelerating the period of maturity. Autumn pruning should also be adopted, as a means to this end, by inducing an early development of flowers. Our climate is not the most favourable for this branch of Rose-culture: we therefore must not waive even the slightest advantage which may be obtained either naturally or artificially.

In preference to giving new plans only, we shall present our readers with some which already exist, and which have obtained the approval of those who have witnessed the effect they produce. For the reasons above stated, we believe the simpler the form of the Rosarium the better. It is therefore thought not necessary to give many plans; but besides those given, we shall offer a description of several places noted for Roses, or where the plants appear arranged with taste.

The most renowned Rosarium in Europe is that of the Jardin du Luxembourg at Paris, which is under the superintendence of Monsieur Hardy. The interest attached to these gardens arises principally from some of our finest varieties having been originated and nurtured there, and to its possessing some unusually large specimens. I remember seeing there, in the month of June, on my first visit to Paris, a Standard of the Tea Princesse Hélène du Luxembourg, of an immense size, with hundreds of its fine flowers in beautiful condition. The tree called to mind the large-headed Hybrid Roses occasionally met with in this country. We shall proceed at once to describe these Gardens.

The wood-cut No. 1, on the annexed page, is a ground-plan of the Rosarium, in which the entire collection of the Luxembourg is planted. It is situated on the right of the public walk leading from the Palais du Luxembourg.

It is below the level of the public promenades, as shewn by the section $a, b$.
In summer, when the Roses are all in flower, they produce a splendid effect viewed from the public walks above, and over the little hedge $c, d$, and the parapet-wall $c, c$. If we descend to the walks $f f$ we lose this effect, as the Roses are then brought on a level with the eye. The little round marks in our engraving shew a line of fruit-trees planted in the borders surrounding the Rosebeds, forming a sort of back-ground, which adds to the effect.



There are two other Rosariums, similar in design, situated on the same side, between rows or groves of trees, but they are on a level with the public promenades. In consequence of this, and being surrounded by trees, the effect they produce is very inferior to that of the one just mentioned. No. 2 is an isometrical view of one of these : the other is so similar in design to No. 1, that we think it unnecessary to introduce it. The double lines here are intended to shew the edgings of the beds, which are of Box. The vases in the centre are planted with Geraniums, Verbenas, \&c. during the summer months. It is wholly surrounded with trees; but they are shewn here on two sides only, in order that the plan of the Rosarium might not be interfered with. The presence of these trees could be dispensed with to advantage. By excluding sunlight and a free circulation of air they produce most pernicious consequences, which the drawn and weakly state of the plants sufficiently prove.

The gardens of the Luxembourg are enclosed by a kind of fence, made of light sticks, which are much used in France for similar purposes. The manner of planting adopted is this:-The beds are about seven feet wide, and contain two rows. Two plants of each variety, a standard and a dwarf, are planted side by side, at distances of about three feet. They are so disposed that every standard has a dwarf behind it, and in consequence every dwarf is backed by a standard. The number of plants contained in the Rosarium of which No. 1 is a ground-plan is about 1800. The Roses in No. 1 are apparently planted without any design of keeping the respective groups together. In the other gardens, however, one is planted solely with Autumnals, and the other with the various groups of Summer Roses. The extreme simplicity in their formation renders them not very brilliant objects on paper ; but although the design be simple, the effect is good. Now, without holding these gardens up to view as perfection, I do think two principal points in the formation of the Rosarium have been perfectly wrought out. Here is a terrace, from which we can look down upon the plants; view them as a whole (which is indeed a grand sight); and they are so arranged, that we can look closely at each by descending to the walks. The greatest objection appears to me to exist in the non-arrangement of the varieties in separate groups, according to external characters; and which might have been done without lessening the effect produced as a whole.

Hertfordshire, famed for its Rose Gardens, can boast of none to excel in variety and beauty that at Broxbournebury, the seat of George J. Bosanquet, Esq.

On entering the Flower Garden from the front of the house, the first thing to engage attention in the way of Roses is a plant of the Noisette Lemarque, of considerable size, trained against a south-west wall. It is budded on the common Chinese, or Monthly, and thrives well, producing clusters of six or eight of its rich lemon-coloured blossoms on a single shoot. It receives no protection from frost during winter, yet suffers no injury, owing probably to the soil being dry, and the situation airy.

There is a terrace of considerable length leading to the Rosarium. To the left of the terrace is an aviary, on a lawn studded with ornamental trees, and groups of plants of various kinds arranged in fancy beds. On the right is a wall of moderate height, covered with Climbing Roses, in front of which are also beds filled with Geraniums, Verbenas, and other summer and autumn flowering plants. On the top of the wall arches have been built, and the Roses are trained up to partly cover them. At the drop of the arches narrow trellises are fixed at a distance of about one foot from the wall, and are covered with the Sweet-scented Clematis (Clematis flammula), the effect of which is very good. The Climbing Roses, which are of various kinds, are chiefly budded on the old Noisette. One plant, which attracted particular attention, was the Fulgens (Hybrid Chinese), whose growth was extraordinary ; and there was also a plant of Franklin (Hybrid Bourbon), which Mr. Fuller, who is gardener there, informed me is budded on the White Banksia, and from which circumstance it appeared to lose none of its known character for robustness. Proceeding forwards, we pass, by a gently deviating path, through a Dahlia Garden and a Verbena Garden, and enter the Rosarium, of which it is more particularly our business to speak.

Annexed (No.3) is a view of the Rosarium, which, with the description we are $N^{\circ} .3$.

about to offer, will, we trust, convey to our readers a clear idea of its construction. We admit that it is simple in the extreme, but think none will condemn it on that account. Its dimensions are, length, 85 yards; width, 27 yards. The number of plants contained in it is about 2200,1000 of which are Autumnals. It lies open to the south-west. It is fenced in on the east by a wall, on which fruit-trees are planted; and to the west is a laurel-hedge, which forms a capital shelter and background, although not allowed to grow to a sufficient height to injure the Roses by shade or otherwise.

The ground between the wall on the east and the laurel-hedge on the west is formed into five beds. The first three of which we shall make mention contain Summer Roses only, many of which are large and handsome specimens. At the back of the bed, nearest the wall marked 1 , is a row of iron stakes, placed about six feet apart, and standing five or six feet out of the ground, at about three
feet from the wall. Against these, Climbing Roses are placed; some on their own roots, which are trained up from the ground ; others, which are the kinds of rambling growth, are budded on tall stems. Some of the branches of the latter are trained on chains running from stake to stake, with a slight curve, forming festoons of Roses; while the chief portion are allowed to rise and form a head above the iron stake. About midway in the row, between each of these climbers, a dwarf is planted, and thus the back row is formed. In front of it are three rows, which gradually slope towards the path in front. The plants on stems are planted about four feet apart in the row, and dwarfs are freely interspersed, which does away with the disagreeable appearance that is often presented to view in beds of Standard Roses only, by the exposure of a broad surface of bare ground. As we look at the Roses from the walks in front, we discover that they are not planted in straight lines, but transversely, and the front row is formed with complete dwarfs.

The next bed (No. 2) is also a parallclogram, containing six rows of plants. There are two rows in the centre, on stems of about equal height; from either side of which there are two rows, the one under the other, sloping gradually towards the paths. The order of planting is the same here as in No. 1 ; but this bed has two fronts, the one facing the east, the other the west.

In No. 3 there are three rows of plants, sloping from the back to the walk, as before. Behind these is a light wire fence, covered with various climbing plants, which separates the Summer kinds from the Autumnals.

No. 4 is planted entirely with Autumnals. It is supported behind with the wire fence just mentioned, which divides the gardens, and in front is a serpentine walk. In the narrowest part of this bed there are three rows of plants, in the deepest five, the whole sloping from the wire fence bchind towards the walk in front. The order of planting here is the same as before. Let one feature, however, be noted: the Autumnal Roses, being of smaller growth than the Summer kinds, they are planted at lesser distances. Here and there, too, a large Standard, or a Pillar Rose, is placed at the curves of the bed, which breaks the uniformity of appearance, which, when the Rosarium is on a grand scale, might otherwise become tiresome.

No. 5, which is the last bed, is that in front of the laurel-hedge on the other side of the scrpentine walk. There are six plants in the deepest part of this bed, and four in the narrowest. The order of planting is as before.

At the north end of the Rosarium, opposite to bed No. 2, is a rustic temple, raised considerably above the level of the ground, and covered with various creeping plants. The front of the raised ground on which it is built is planted with Kalmias and Rhododendrons, forming a bank sloping to the level of the Rose beds. From this temple a fine view of the garden is obtained, and it was from here our sketch was taken. Looking down upon the Roses, we see white, purple, crimson, yellow, with various intermediate tints, mingled together in gay
profusion; the trees, in some instances, of such size, that a single specimen presents the eye with a gorgeous mass of colour. In the extreme distance this indeed is all we can distinguish; but the trees and flowers immediately bencath the eye are individually seen to advantage. As we continue to gaze on the prospect before us, the whole melts into one broad sheet of colours, variously and inextricably commingled, the effect heightened by the tufts of rich green foliage rising here and there among the flowers. As the cye seeks relief by resting upon the walks, we see, at the further end, arches covered with Climbing Roses, under which we pass on our return to the terrace.

The walks in this Rosarium are of gravel; and a double row of flints, with their white coats, are placed at the edges of the beds, a space of about six inches being left between the rows, in which Sedums and various rock plants are planted.

Where the walks intersect, a Climbing Rose is planted at each corner of the beds, and trained over iron supports to form a floral archway.

We shall now present our readers with two original plans, designed expressly for this work by Messrs. Major and Son, the eminent landscape gardeners of Knosthorpe, near Leeds, and on which they make the following remarks :-
"We have arranged them in the formal style, which we decidedly prefer to any other. In grounds sufficiently extensive for the introduction of various scenes, the Rosarium is one calculated to produce considerable interest; and being formal, and a separate scene, it is necessary that it should be masked out from the general pleasure-ground by shrubs and low ornamental trees, blending with the adjoining ground in the natural or English style. In situations where the ground is too limited for the introduction of a Rosarium, we prefer assembling the Dwarf Roses in groups or small masses in front of the shrubberies; and arranging the Standards irregularly here and there just behind some of the lower shrubs, so that the stems for the most part may be covered. The heads appearing above the shrubs has a highly interesting effect.
"In the designs for the Rosariums, we have arranged the whole of the beds and Standard Roses as near each other as they should be placed, even in the most limited grounds; but in situations where a little more space of lawn can be allowed, it will be better to keep them more apart, the same character being kept.
"If an extensive Rosarium is required, it is only necessary to increase the number of beds and Standards, and to preserve the same proportions in the beds and lawn as shewn in the plan No. 4 and in No. 5: it would only be required to throw the shrubbery farther back, and form another range of round beds between it and the Standards; and, if necessary, the shrubberies enclosing the Rosariums may be fronted both with Standards and Dwarf Roses. We adopted this plan, a few years ago, in arranging a Gentleman's Rosarium, the area of which was nearly half an acre in extent; but his collection being very extensive, we found it necessary to front the whole of the shrubbery enclosing the compartment both with Standards and Dwarfs; and during the blooming season it presented a scene


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$a$ to $b$. Arcade of trellis-work.
Scale of Fect.
c c. Covered seats.
truly splendid, surpassing the assemblage of any other family of plants we ever saw, even a splendid collection of Rhododendrons which composed another scene in the same grounds.
"The arcades in both designs are for exhibiting Climbing Roses, which we need not say will produce a very imposing- effect. They should be formed of

latticed pilasters, twelve inches wide, and about six feet high to the spring of the arches, each pilaster having four uprights one and a quarter inch square, placed two and two, an inch apart, with balls between them at proper distances, and filled up in the middle with lattice-work, shewing five-eighths of an inch in front. The openings between the pilasters may be from four to five feet, according to the height. The arch over the walk must be of lattice-work. Some of the round beds may be of basket-work, twelve or fifteen inches deep, especially those shewn with a varied outline.
"In order to make the Rosarium as interesting as possible, the beds might be planted with patches of early flowering bulbs to precede the general bloom of Roses; which bulbs, after flowering, might be lifted, and their places supplied by all the different kinds of Annuals, to succeed the general Rose bloom. So that there would first be a show of early bulbous flowers; then the grand display of Roses; and, lastly, the show of Annuals."

But it may not suit every one's inclination or convenience to form a Rosarium, however desirous he may be of cultivating a few choice specimens of Roses. In small gardens it often happens that there is little room, or the proprietor's favourite may be another flower. He may wish not to exclude Roses altogether, although he has not space to cultivate many.

It is therefore necessary that we should consider how they may be introduced, to form an agreeable feature in the Flower Garden.

Various methods have been suggested, and many carried out with good effect. With regard to Standards, they have been grouped in beds on lawns; planted in continuous lines, running parallel with walks; in square beds, or parallelograms; and they are also not unfrequently planted singly on lawns. Dwarfs are planted in single beds, or groups of beds; sometimes a single variety to each bed, to obtain masses of well-contrasted colours; sometimes the varieties are mixed, and the colours blended. Each of these plans is good under particular circumstances ; for we have not always the exact plot of ground at our disposal necessary to carry out certain forms, and besides which our tastes vary.

Perhaps the best mode of introducing Roses to the Flower Garden is, by a group of beds thrown together on a lawn. In these, if the proprietor be a Rose Amateur, he would most likely be desirous of obtaining as great a variety as possible; and a bed should be set apart for each group, or for a certain number of his favourite groups, if he be confined for space. There is a very elegant arrangement of clumps on the lawn at Southgate House, the seat of Isaac Walker, Esq. The ground they occupy is a strip taken in from the park, about one hundred and thirty yards long, and eight yards wide : it lies open to the east. There are fifteen clumps formed in a single row, some two, and some four yards apart, excepting the sixth and seventh clumps, between which there is a clear space of sisteen yards. Their forms are circles, segments of circles, ovals, parallelograms, nctagons, and the like. In front of the lawn is a broad gravel walk, and at the
back a wire fence, separating the lawn from the park. The clumps are planted with the following groups, in the order in which we place them, commencing with that nearest the dwelling-house : 1. Bourbon ; 2. French ; 3. Provence; 4. Damask Perpetual; 5. French ; 6. Moss; 7. Noisette ; 8. Bourbon Perpetual ; 9. Hybrid Provence ; 10. Hybrid Perpetual ; 11. Hybrid Chinese ; 12. Damask and Alba mixed ; 13. Bourbon; 14. Sweet Brier, and its hybrids; 15. Hybrid Perpetual. This series of clumps is situate on the right-hand side of the gravelwalk when procceding from the house. To the left are walks leading to the Flower Garden, some fine Horse-chesnut trees, and a few clumps to contain Geraniums, Verbenas, and various other plants. Behind these is a wall, on which fruit-trees are planted. At the further end of the Rose-clumps is a group of ornamental trees, opposite to which is a Summer-house. With regard to the arrangement, the plants intended for the centre, or centre rows, were selected on stems about three feet and a half high: the others gradually decrease in height as they approach the edges of the beds. The greatest distance from plant to plant is three feet; and the smaller growers, which have place towards the circumference of the beds, are planted nearer to each other.

The natural soil here is clay upon gravel. In preparing the ground to receive the Roses, the soil was removed from the beds to the depth of two feet, and replaced with good loam-the washings of the park and fields, which had been collected from the gutters there.

The earth from the walk was removed to a greater depth than that of the beds; and various substances were placed in the bottom to form a drain, in order that the latter might be laid quite dry. This was taking a great deal of pains with a soil not irremediably bad-with a soil which might have been rendered suitable for Rose-culture with less labour than that bestowed on it. But the additional painstaking was more than repaid by the complete success attendant on the transplantation of the trees. Of 319 specimens transferred from the Nurseries here, not one died! The greater part, too, flowered beautifully the first season after transplantation, which is not generally the case. They were planted with great care, and no doubt received the strictest attention during the spring and summer. But although the success here must be chiefly ascribed to the above-mentioned circumstances, this case must not be considered as one of common occurrence. We record it here because remarkable; for, with the most skilful management and utmost care, some instances of failure will almost invariably ensue.

When Roses are planted in the manner of which we are now speaking, if the proprietor of the garden be a lover of flowers in general, without caring to enter into the detail of the matter, planting in masses of colour will probably suit his taste better than making upeach clump with mixed varieties. In this case the beds should be of smaller dimensions than when filled with various kinds, or there is an appearance of too much sameness. We here plant for effect; and if the plants are $D_{\text {warfs, }}$ full scope may be allowed for the exercise of taste and ingenuity in
the construction of the beds: the simple forms recommended to the Amateur for Roses on stems may be cast aside. The effect of planting masses of colour is truly splendid, and such as cannot be accomplished simply by a mixture of varieties.

Let us suppose a group of beds formed on a lawn within sight of the drawingroom, and filled with the freest flowering Roses. Let Chinese Fabvier (scarlet) fill one bed; Bourbon Queen (salmon) another ; Paul Joseph (purple and crimson) a third; Le Pactole (yellow) a fourth ; and, in continuation, selecting kinds to introduce as agreeable a contrast of colour as possible, and of as nearly equal growth, as the form of the series of beds may require. If we prefer Summer Roses, there are kinds among them quite as suitable for the purpose. Can we doubt the effect of this mode of planting? Could we introduce a more agreeable feature to the Flower Garden? If formed of the Autumnals, we have flowers springing forth in the earliest of Summer, and continuing to blossom till November; bidding defiance to the slight frosts of Autumn, which check or destroy the less hardy races, that contribute so much to the beautifying of the garden.

In small gardens, where variety is desirable, a bed of moderate, or large size, produces probably a more agreeable effect than numerous small beds: the latter are, however, better, if well-contrasted masses of colour are desired.

Standard Roses, planted in lines running parallel with garden-walks, are shewn to great advantage, and this method is in many cases to be recommended; the borders beneath being planted with herbaceous plants, or others of humble growth.

There is one practice which has been too frequently adopted in planting Roses singly on lamns, that of placing the turf close up to and around the stems immediately after planting: this cannot be too highly deprecated. The starved and unhealthy appearance the plants usually present tells unmistakeably their dislike of such treatment. Why, then, should they be submitted to it? Were they allowed to become thoroughly established, the turf might then be laid on without producing such injurious consequences. But it is desirable to avoid even this. For of what avail, we ask, can the soft genial showers of spring be, or even the hearier rains of summer, to the roots of a tree, when they have first to pass through the thirsty turf, and give sustenance to the blades composing it. And again, the turfing of the ground prevents in some measure the air from permeating the soil, which practice proves so beneficial to the growth of plants. It may be said that an open space round a plant on a lawn is objectionable; but this may be overcome by placing a few white flints or burs on the soil; or sowing it with Annuals of small growth, which would diversify and add to the beauty of the garden.

Some rarieties of Roses, which form large heads when grown as Standards, look well planted in avenues.

In small gardens, Standards of various kinds may be planted completely round the outside of the lawn, at equal or various distances.

Weeping Roses form beautiful objects when planted singly on lawns; and it is surprising that they are not more generally cultivated. Are they so rare that few have yet witnessed them in complete beauty? It may be so. There is a Letter now before me, from an Amateur in Devonshire, who purchased from here, three years since, a plant of the Ayrshire Ruga eight feet in the stem. It has been trained as a Weeper; and the tips of its branches now rest upon the grass below : an arbour is formed by it, and there is a seat within. The branches are, in the flowering season, covered with blossoms from the head to the ground, and the sight is described as magnificent.

There are but few kinds naturally suited for this mode of growth; although many may, by a course of pruning and training, be brought to form handsome specimens. Of natural Weepers, the Ayrshire and Evergreen are the best. Of others, such of the Austrian, the Boursault, the Hybrid Chinese, the Hybrid Noisette, the Noisette, and Bourbon, as are of pendulous growth, should be chosen. The latter groups introduce a pleasing variety of character and colour, points well worth gaining, especially if many Weepers are wished for.

We cannot conceive a more beautiful object on a lawn than a Standard Rose trained as a Weeper,* covered, in summer, with its thousands of blossoms, relieved and admirably set off by the careless grace of its growth, and the agreeable colour of the foliage. By a careful choice of varieties, and a judicious system of pruning (see article "Pruning"), the long pendulous branches may be made to droop from any moderate height to the ground, producing flowers their whole length.

We should fancy that Roses of pendulous growth, worked on short stems, and planted in vases, would have a pretty effect. Again, if the same kinds were planted as Dwarfs, in raised baskets, on lawns or elsewhere, and their shoots allowed to hang down on all sides, the effect of the masses of flower they produce, if equalled, could not be surpassed.

We occasionally see varieties of vigorous and straggling growth formed as plain Standard or Bush Roses. We must confess we do not admire them as such; and think them better fitted to form Climbers, Pillars, or Weepers. And if the Rose is more beautiful under one form than another, it is perhaps when fashioned as a Pillar Rose. Every Rosarium, and indeed every Flower Garden, should possess some of them. We have previously stated that they may be introduced to the Rosarium, to form the boundary-line of the summer and autumn gardens. In the Flower Garden they may be planted to form temples, avenues, singly on lawns, or in groups of three, five, or more. If planted in a ring round a circular clump on a lawn, at some distance from its circumference, we should conceive the effect to be good. There is a collection here planted on both sides of a raised walk four feet wide, at distances of three feet in the row. They form a complete grove or

[^7]avenue, at either end of which is an arbour. The tallest plants are now about fourteen feet high; and when the whole are in bloom, they attract more attention than any other feature in the garden. The kinds are, the Ayrshire, Sempervirens, Boursault, Hybrid Chinese, Noisette, and Bourbon, planted indiscriminately, some of which shew themselves better suited for the purpose than others, and which we shall point out when we come to speak of Pillar Roses.

Climbing Roses may be introduced to the Flower Garden to advantage, as a cover for fences, or to hide any object disagreeable to the eye. When it is wished to cover a high fence or building quickly, some of the strongest growers should be chosen, budded on tall stems: the space left beneath may then be covered with kinds of less rampant growth. Climbing Roses may be planted to cover arbours, rustic seats, or to form arcades or arches over walks. I have seen them trained on arches by the sides of walks, a line of arches on either side running their entire length, not stretching over them. Such may be admitted, in certain positions in the Flower Garden, with charming effect, although they are not always in harmony with surrounding objects, or in good taste. When this arrangement may seem suitable, the arches should not be placed at too great a distance from each other; and the effect may sometimes be heightened by running chains, in curved lines, from arch to arch, covering them with the spare branches of the Roses. For this purpose the Evergreen Roses are perhaps the best, as they are very hardy, and hold their leaves longer in winter than any other Climbers.

The Evergreen and the Ayrshire may also be planted in rough places in parks, to trail over waste ground, hillocks, or the like: they may also be made to climb old trees; in which way they present a very rustic appearance, and produce a pleasing effect. It appears to us better taste to plant them in such situations than budded plants, as the latter are only in character in dressed grounds.

A bank of Roses produces a very agreeable effect, especially when seen from the windows of the house. The Evergreen, owing to their vigour and density of growth, and the immense trusses of flowers they produce, are of the best kind for this purpose. They may be planted two or three yards apart, according to the quality of the soil. They will need only just so much training as to induce them to cover regularly and thickly the whole surface of ground. As to pruning, the less the better; but we must of course keep the form of the bank elegant, and the plants in health and vigour.

If these same kinds were planted at the base of trees in the most open spots, near the confines, or within sight of the walks in shrubberies, we think they would introduce a pleasing feature there. In such places, how often does the gloomy and desolate triumph over the cheerful and beautiful! The trees are often bare, or dead branches only seen, for some distance from the ground; and the beauty of their tops is not appreciable as we walk beneath. Who has not sometimes rambled in such walks, where the wild Honeysuckles have presented the most pleasing feature, if not the only one, to tempt him to pursue his walk? And
beautiful indeed they are, creeping over the rugged branches of the trees, their tortuous stems shewing here and there, and their beautiful flowers and leaves glistening among the boughs above. And why should not Roses be brought to fill like positions. Let the Ayrshire be planted in spots where they obtain a little light, and they will do. But it will be well to give them every encouragement at the ontset. Remove the soil at the root of the tree to the depth of eighteen inches, and for two or three feet square, filling up the opening with two-thirds good turfy loam, well intermixed with one-third manure, rich, but not too fresh. In this they may be planted. Train them for the first year or two, until they get good hold of the trees; then manure them annually. Prune very little; and there is no doubt they will flower well, and lend additional interest and beauty to the shrubbery-walks by the relief and variety they give.

In some places, where the shrubbery-walks are extensive, we have seen groups of Roses introduced with good effect.

It is probably the best plan here to have the arrangement as simple as possible, that it may be comprehended at a glance. It should be entirely concealed from distant view, to the end that some little surprise may be created, by finding ourselves unexpectedly greeted in our course with a mass of these lovely flowers. Planting simply in straight rows about four deep appears an excellent method; and the plants may be arranged to slope gradually from the back to the front. The entrance at each end might be arched over with wire-work; or even two or three rustic poles fixed upright on either side the walk, and arched over, would be in perfect harmony with the design. Round and over these poles and arches Climbing Roses may be induced to grow, mingling the colours, or not, as taste may suggest, but taking care that the varieties be abundant bloomers, and of similar growth. If the arches are too long, the light is excluded from the interior, and the flowers all draw to the top, in which position they are not seen. If it is wished to have an arched Rose-walk, the arches should not exceed two feet in length, and they should be placed about a yard apart. The effect produced in viewing the walk from either end is the same as if the arches covered the whole space of ground; and when passing under them, the flowers hang drooping from the sides and top, and are then seen to advantage.

But to return. From the situation (the Shrubbery), the rare and perfect kinds of Roses will not be looked for here : the beholder will very probably not stay long enough to examine them critically, and the aim should be to produce an impression at first sight. This may be done by choosing the showy free flowering kinds, such as are famed for the quantity of flowers they produce, for beauty en masse, and brilliancy of colour, in preference to those possessed of great symmetry of form, or exactitude of habit. Many of the Chinese, Hybrid Chinese, and Noisette Roses, are of this kind.

Such a plantation as that just described exists at Ponsbourne Park, Herts, the seat of Wynn Ellis, Esq. M.P. The entrance on either side is arched over with rustic poles, for a distance of a few yards ; the arch is so curved that the plantation
is entirely concealed from view till you are within it. The walk, which is simply a continuation of the shrubbery-walk, is of gravel; the beds edged with the pretty Lawrenciana Roses. We can imagine the effect of such an encounter upon the mind of a visitor, who may have chosen to spend his early hours in the shrubbery-walks.

There is a very pretty arrangement of Roses introduced in the walks of the shrubbery in the gardens of John Warner, Esq., at Hoddesdon. No. 6. is a $N^{\circ} .6$.

ground-plan of the beds in which they are planted. The earth in the four beds which compose the inner circle is raised about four feet above the level of that which surrounds it ; and upon this is built a temple, the frame-work being formed with iron rods. It is covered with Climbing Roses of various kinds. There are eight plants planted in each bed. No. 7. is a sketch taken of this temple when

the Roses were pruned. Although they cover it entirely, we have thought it desirable to omit them, in order that the construction of the frame-work might be clearly seen. The temple, to which there are four entrances, has at its circumference twelve gothic arches, the outer standards of which are seven fect three inches high, and six feet three inches apart. There are other iron supports between the outer standards and the centre one: the latter, which is placed on the top of the mound, stands ten feet clear of the ground. In the outer ranges of beds are planted a Standard and Dwarf Rose alternately. The diameter of the first circle is twenty-six feet, that of the whole, forty-eight feet.

When in the temple, looking down the walks, we see three rustic figures, modelled in lead, and mounted on pedestals, which vary and add to the beauty of the design. The fourth figure, which would seem required, to give grace and uniformity to the scene, is wanting, a brook running on one side of the circle occupying the ground where it should have place. A hedge of Scotch Roses is planted round the outside, over which we look upon an extensive lawn, with Pinuses and various plants shewing in the distance. Forming a part of the Shrubbery, we may suppose it is not entirely free from trees, but it lies open on one side; and to this, united with skilful management, may be attributed the healthy and vigorous condition of the plants.

The space allotted to this branch of the work is already filled, which we regret, as there are many other Rose Gardens well worthy of notice.

One more we must just glance at, which is known as Rosenthal, and is the property of A. Rowland, Esq., situate at Lewisham, in Kent. The principal features in this garden are an arched Rose-walk, and a Temple of Roses. Water is introduced here, which, although not on an extensive scale, creates variety, and imparts freshness and animation to the scene. There is a garden of about two acres, planted with the French, Provence, and Perpetual Roses.

## CHAPTER IV.

## ON THE CHOICE AND ARRANGEMENT OF VARIETIES, AND REMARKS ON PLANTING.

Having formed the Rosarium, it may be well, before proceeding further, to ask ourselves this question-Are the soil and locality sufficiently favourable to admit of the successful cultivation of all kinds indiscriminately? If so, so much the better; for variation in character is certainly desipable, and each group possesses some particular feature to recommend it. There are the Damask Perpetual, and the Tea-scented, justly celebrated for their fragrance. The Hybrids of the Chinese have an equal claim, on account of their finely-shaped flowers and great variation in colour; besides which, they are the hardiest of Roses, thriving in less favourable situations than most others. Then there are the Chinese, remarkable for great regularity of growth, and whose flowers are produced in gay profusion in Spring, Summer, and Autumn, and which only cease to blow when the chill breath of winter strikes them, heralding the approach of the season of repose. In addition to these, there are the Provence, the Moss, the Damask, the Alba, the Hybrid Perpetual, and the Bourbon-the two latter blooming almost as constantly and as long as the Chinese-and many other groups as interesting, if not so extensive, or so generally known. Can we, in planting the Rosarium, wholly dispense with any group? We think not. To render the design complete, a few varieties from each should be chosen : the cultivator may have his favourite groups, and introduce them in greater quantity ; but if the soil and situation are good, he should not wholly exclude any.

We now intend to note the number of varieties we should draw from each group, were we about to plant a Rosarium for ourselves : this, we believe, will prove useful to some of our readers. And in order to do justice to so difficult a task, I have carefully considered the rarieties separately, and in many instances weighed them the one against the other. Let us suppose a Rosarium to require five hundred plants; and as all have not precisely the same objects in view in planting, it may be well to offer two arrangements.

1. Where the design is to introduce as great a variety as possible, without sacrificing desirable qualitics or beauty :

Summer Roses: *The Boursault, 3. The Double Yellow, 1. The Scotch, 12. The Damask, 12. The Provence, 10. The Pompon, 4. tThe Moss, 30. The French, 80. The Hybrid French, 20. †The Hybrid Chinese, 50. †The Hybrid Bourbon, 20. tThe Hybrid Noisette, 5. The Alba, 10. The Sweet Bricr, 3. The Austrian Brier, 3. *The Ayrshire, 6. *The Evergreen, 6. *The Multiflora, 4. *The Hybrid Musk, 2. *The Prairie Rose, 6. *The Banksia Rose, 3.

Autumnal Roses: *The Macartney, 3. The Microphylla, 2. The Four Seasons, 2. The Rose de Trianon, 4. The Damask Perpetual, 10. tThe Hybrid Perpetual, 30. The Bourbon Perpetual, 8. *The Rose de Rosoméne, 6. The Perpetual Scotch, 2. The Perpetual Moss, 2. The Crimson Chinese, 15. The Chinese, 15. The Fairy Rose, 4. The Tea-scented, 46. †The Bourbon, 50. *The Musk, 3. *The Noisette, 12.

From the groups marked thus $\dagger$, the best Pillar or Pole Roses may be drawn : from those marked thus *, the best Climbing and Weeping Roses.
2. Where one view in the culture of Roses is to compete for prizes at the horticultural exhibitions:

Summer Roses: Provence, 8. Moss, 10. Damask, 6. Alba, 6. Gallica, 75. Hybrid French, 20. Hybrid Chinese, 30. Hybrid Bourbon, 15. Austrian, 1.

Autumnal Roses.-Damask Perpetual, 6. Hybrid Perpetual, 18. Bourbon, 20. Noisette, 4. Crimson Chinese, 5. Chinese, 6. Tea-scented, 20.

Under these circumstances, we think it advisable to reduce the number of varieties, and plant two specimens of each. It is not often that we can cut three fine trusses of flowers (which are required under the present mode of exhibiting round London) from a single plant at the same point of time; and, from a glance at the rules of several Provincial Societies, I should say two plants of each, of a less number of varieties, offer advantages over double the number of which only single plants are grown. In addition to the reason given above, I would remark, that by reducing the number of varieties, we improve the quality of our Collection; and although it may be difficult to cull the choicest where all are choice, yet he who has a thorough knowledge of the varieties, whose eye has been long practised among them, will discern slight differences, and know the true merit of each.

But sometimes circumstances are adverse to the cultivation of all kinds, and what must be done then? This materially alters the aspect of affairs. The cultivator should then consider what proportion may be planted to advantage, and make up his plans with such. We have previously stated that it is unnecessary to plant dclicate Roses in unfavourable situations or unkindly soils, as there are plenty of a nature and character adapted for all such circumstances.

Let us, then, before we leave this part of the subject, offer a classification of the groups, with the view of aiding the tyro in selecting for himself.

1. The hardiest groups; the varieties thriving in localities and soils the least
favourable to vegetation. Summer Roses: Boursault, Damask, Hybrid Chinese, Hybrid Bourbon, Ayrshire, Evergreen, Hybrid Musk, the Prairie Rose. Autumnal Roses: Some of the Hybrid Perpetual, some of the Bourbon, some of the Noisette. The plants here, whether dwarfs or standards, should be budded, and not on their own roots.
2. Hardy groups; the varieties thriving in ordinary soils and situations, under common treatment. In addition to all the groups mentioned in No. 1, the following may be classed here: Summer Roses: The Scotch Rose, the Provence, the Pompon, the Moss (budded), the French, the Hybrid French, the Hybrid Noisette, the Alba, the Sweet Brier, the Austrian Brier. Autumnal Roses : The Four Seasons, the Rose de Trianon, the Damask Perpetual, the Bourbon Perpetual, the Perpetual Scotch, the Perpetual Moss, the Crimson Chinese, the Chinese or Monthly, the Bourbon, the Musk.
3. Hardy groups, as regards soil, but requiring an airy locality and slight protection against frost, if the weather be severe in winter. Summer Roses: the Multiflora, the Banksiæ. Autumnal Roses: the Macartney, the Microphylla, the Rose de Rosoméne, the Crimson Chinese, the Chinese or Monthly, the Fairy Rose, the Tea-scented, some varieties of the Noisette.
4. Groups not liable to injury from frost, but which require a pure air. Summer Roses: the Double Yellow, the Austrian Brier.
5. Groups reguiring a wall to develope their flowers in full beauty. Summer Roses: the Banksix. Antumnal Roses: the Macartney, the Microphylla; also varieties from various groups, whose flowers do not expand well under ordinary treatment.
6. Groups best adapted for the heaviest soils. Summer Roses: the Boursault, the Damask, the Hybrids of the Provence, the French, the Hybrid French, the Hybrid Chincse, the Hybrid Bourbon, the Sweet Brier, the Evergreen, the Multiflora, the Hybrid Musk. Autumnal Roses: the Hybrid Perpetual, the Chinese or Monthly, some of the Bourbons, the Musk, some of the Noisette.

For such soils as these the plants should be budded, and not on their own roots.
7. Groups suited for the lightest soils. Summer Roses: the Scotch Rose, the Provence, the Pompon, the Moss, the French, the Hybrid Noisette, the Alba, the Ayrshire. Autumnal Roses: the Four Seasons, the Rose de Trianon, the Damask Perpetual, some of the Hybrid Perpetual, the Bourbon Perpetual, the Perpetual Scotch, the Crimson Chinese, the Fairy, the Tea-scented, some of the Bourbon, some of the Noisette. In soils of the above description the plants should, so far as attainable, be grown on their own roots: such as are not, should be budded on very short stems.
8. Groups best suited for Pot-culture, many kinds improving greatly in beauty when grown under glass. Summer Roses: some of the Hybrid Chinese, some of the Hybrid Bourbon. Autumnal Roses: some of the Damask Perpetual, the Hybrid Perpetual, the Bourbon Perpetual, the Crimson Chinese, the Chinese.
or Monthly, the Fairy Rose, the Tea-scented, some of the Bourbon, some of the Noisette. The plants may be budded, or on their own roots, at the option of the cultivator.
9. Groups best suited for forcing. The same as recommended for pot-culture in No. 8; and the plants should be budded on the Dog-Rose, the Manettii, or some free stock.
10. Groups which furnish the best Climbing Roses. Summer Roses: the Boursault, the Ayrshire, the Evergreen, the Multiflora, the Hybrid Musk, the Prairie Rose, the Banksian Rose. Autumnal Roses: the Macartney, the Rose de Rosoméne, the Musk, some of the Noisette.
11. Groups which furnish the best Pillar or Pole Roses. Summer Roses: the Damask, the *Moss, the Hybrid Chinese, the Hybrid Bourbon, the Hybrid Noisette, the *Alba Rose. Autumnal Roses: the Hybrid Perpetual, the Bourbon, the Noisette. The "vigorous" growers from these groups must be selected, and the plants usually preferred are dwarfs on their own roots. These remarks are applicable to No. 10 also.

In selecting varieties to plant in the Rosarium, or to ornament the Flower Garden, if the individual have not a thorough knowledge of Roses, the better plan for him to pursue is, to make known his plans to a respectable Rose grower. Let him first name his soil and situation; then the particular object he has in view in cultivating Roses; whether he desires to compete for prizes at the horticultural exhibitions, or merely seeks, in Rose-culture, a quiet recreation; or whether, again, his object be to create a display, to obtain a grand mass of flowers, or to produce effect from some particular spot. He should state whether he would wish Summer or Autumn Roses to preponderate; and if he has some knowledge of the groups, let him name those which are most pleasing to his taste. In addition to this, he should state whether standards or dwarfs, \&c. are most admired; the colours preferred; and give either the number of plants wanted, or the quality and the sum he wishes to expend.

This is undoubtedly the most advantageous plan for the purchaser. If the tyro select his own varieties from the Catalogues, the chances are, that he will be taken with one or two points in a Rose, and fix upon it without giving other points their due weight, and thus disappointment not unfrequently ensues. For example: the Rose Le Grand Capitaine (Bourbon Perpetual) is exquisite in colour ; it is large, and very double. These qualities would recommend it ; but it is a poor grower, and the arrangement of the petals is indescribably bad.-The flowers of Coquette de Montmorency (Bourbon Perpetual) are perfect in form ; the habit of the plant is also unique, but the flowers are small, and the variety a shy grower. The Rose amateur will usually discover these points, but not so the tyro; and no sale-catalogue can afford space to describe, in full, all the good and bad points of each variety. But if the purchaser give the information above stated, and apply to a respectable firm, his objects may be fully attained. Let it
(Div. I.)
be further remarked, that this plan of dealing is also advantageous to the vendor; and he compensates for the accommodation afforded him, by sending a number of plants free of charge, or prices the whole at a lower rate than he could have done had the amateur selected them individually. The efforts of the Rosegrowers are directed towards obtaining the greatest possible quantity of the finest varieties; and independent of feeling it a duty to serve, in the best manner, those who confide in them, it is their interest in two ways to supply only the choicest varieties. In the first place, they have usually the largest stock of such; and then, it is these which will do them the most credit, and recommend them to further transactions. It is no advantage to them to send bad growers, or secondrate kinds : it is the reverse. The bad growers are alnays most difficult to propagate and bring to a saleable condition, for which the trifling addition in price does not compensate : and it is easier to grow four or five thousand of a first-rate variety, than to grow a like number of plants divided into fifty different kinds. We need not speak of the disadvantage they reap from the sale of any but the best kinds; and I believe they do this, even though the purchaser select them himself. But beyond the advantages already mentioned as derived on both sides from this method of dealing, the purchaser obtains better plants. In a collection of one or two thousand varieties, there is a greater number of first-rate kinds than the most ardent cultivator of Roses would be likely to purchase at one time; and if the plants of any particular variety are small or weakly that season, they are excluded, and can be added to the collection at subsequent periods.

Let us now proceed to make a few remarks on planting. We will suppose the beds ready formed and prepared, and the order of planting arranged. There is a sufficient number of plants at hand of the required heights and kinds to fill them. If it be a Rosarium or a series of beds we are about to plant, we may suppose that each group will have a bed to itself; or if our plans are not sufficiently extensive to admit of this, each bed should be planted with varieties of one group only, or at furthest with a combination of such as resemble each other in external characters. We are speaking now of planting the Rosarium, or a series of beds: in a single bed or clump it is desirable to mix the groups.

The disposing of the plants will vary so much, according to the plan of the Rosarium or the taste of the individual, and is withal so simple, that it does not appear necessary to enlarge on this particular point. One thing in planting should be borne in mind-Never suffer the roots to lie exposed to the sun and wind, not even for an hour. I fancy I hear, as I have heard some say, Nonsense! the Dog Rose is so hardy that you may expose it for a month to all weathers, wind, frost, or sunshine, without fear of injuring it. I have often heard this asserted, and have tried experiments, which it is not necessary to record here, to convince myself of a simple fact, which it may be said no one ought to have doubted. One experiment I will relate. In planting some French Roses, two plants of the same kind were left out of the ground for two days and two nights in December. They
were budded on the Dog Rose. The days were sunny, the nights were frosty, the mercury falling to about $28^{\circ}$ Fahrenheit. Numerous other plants, whose roots were kept covered, and which were planted at the same time, grew and flourished without one exception. And these two did not die; but for three years they have maintained a miserable existence, neither growing as the others grow, nor producing any creditable flowers ; and yet they were as robust and vigorous as any, if, indeed, not more so.

If there are two employed in planting, the one may dig the holes at proper distances, mixing the soil taken out with some well-pulverized manure, and laying it on the sides of the holes ready for use in planting. If the soil be light, he may, notwithstanding the dressing it may have previously received, add a few spadesful of loam for any very choice kind: if the soil be heavy, he may add a few spadesful of leaf-mould. This latter substance is an excellent addition to heavy soils, and almost indispensable when the Tea-scented Roses are planted there: it tempts them to root vigorously, and strong well-flowered plants are the result.

If Standards only are planted, three feet apart is a good distance; and if there is an objection to planting Dwarfs among the Standards, and it is still thought desirable to cover the ground below during summer, this may be accomplished by planting Annuals, such as, Mignonette, Viscaria oculata, Campanula stricta, and any others of slender growth. These cannot injure the Roses: in hot dry seasons we believe they prove beneficial, by the partial shade they afford; but they should be planted very thinly, and those kinds chosen which are of the most slender growth. When Dwarf Roses only are planted, from one to three feet, according to the vigour of the kinds, is the distance usually chosen.

A few words on arranging plants in single beds may not be misplaced here. We first take the centre of the bed, where we place the tallest plant, and which should be a robust grower, an abundant bloomer, and an attractive Rose. In reference to this plant, whatever may be the shape or size of the bed, the others are disposed. They should incline gently from it in any or every direction, till the plants at the edge be on very short stems or perfect dwarfs. An inclination of one foot and a half, from one row to another, admits of a very pretty arrangement. Supposing the centre plant to be five feet, the next row may be three feet and a half, the next two feet, and so on. Let it be borne in mind, that the strongest growers should be planted nearest to the centre; and in consequence of their more vigorous growth, greater space should be allowed from plant to plant there than at the circumference of the bed, where the smaller growers are planted. When the holes are opened for planting, throw a little manure in the bottom, and mix it with the soil there; then place the plant in the hole, filling in with the manure and soil laid ready above, treading them firmly about the roots. After planting, give each Standard a stake, to secure it from the action of the wind, and the operation is finished. Be it remarked, that planting deep causes Roses to throw suckers: if the roots are from three to six inches under the soil it is quite enough.

The Tea-scented, Chinese, tender varieties of Noisette, and Lawrenceana Roses, should never be planted in the autumn. Let the beds or places which they are intended to fill remain open till spring. The plants of these groups are sometimes small and delicate, and if put into the ground in autumn they often suffer fearfully from the winter's frost. But plant them in spring; if they are a year old, in March ; if younger, in May or June; and they have the growing season before them: they get a firm hold of the ground by winter, and are more gradually hardened to, and better capable of supporting, the changes and severities of that season.

It is important that the ground be in good working order at the time of planting, for on this depends greatly the measure of success. If it be wet, it hangs to the spade and to the heels of the operator, and prevents him from doing the work well. But worse than this: the moving of ground when wet causes the particles to combine more intimately: it becomes close and dead, and, if thrown about the roots of a tree in this state, acts most prejudicially. Choose, then, a dry time, when the earth bounds clean and free from the spade; and if subsequent dry weather points out the necessity of using the watering pot, by all means do so: far better this, than to plant when the ground is in bad order.

## CHAPTER V.

## PRUNING.

I believe pruning to be the most important practice in Rose culture, and, at the same time, the most difficult to obtain the mastery over, and to apply with success.

The difficulty arises chiefly from the extensiveness of the genus, which is made up of varieties differing so much from each other in habit and character. What a striking contrast does the tiny Lawrenceana, which does not usually exceed eighteen inches in height, present to the other extreme of the genus, the Ayrshire and Sempervirens, which will form shoots fifteen feet long in a single year! And there are kinds of every intermediate degree of vigour and character, and hence the difficulty-the great variation required in the application of pruning.

But, beyond this, the manner of pruning is partly determined by the object the operator has in view, or by the condition and health of the plant. A Rose intended to form a standard would require different pruning to one wanted to form a Pillar Rose, although the variety were the same. When flowers are desired of the largest size, as for exhibition, the plan should differ from that pursued to obtain masses of flowers. Again, a Rose in vigorous condition, when healthy and full of sap, requires less pruning than when, owing to soil, situation, or other causes, it is of moderate or weakly growth. The same degree of pruning applied to each condition would produce opposite results. Close pruning would be the means of improving the health and flowering of a weak tree: it would induce a vigorous one to form wood-shoots only, no flowers.

From the above remarks it will be seen, that after the fullest and most careful examination of the subject, pruning depending so much on circumstances, a great deal must be left to the judgment of the operator: a certain degree of practice is necessary before any great attainment in this art can be arrived at, and I would not advise the uninitiated to trust himself too far, before he has well marked the manœuvres of some skilful friend or practitioner.

I know many instances in which amateurs, who take delight in attending their own Roses, mar the beauty of their trees for want of considering the principles of Rose pruning. Many trees, from too much pruning, grow most luxuriantly, but shew little disposition to flower ; others, from too little pruning, produce abundance of flowers, but they are poor in quality. These are known facts of
every day occurrence; and what are the consequences? Probably the varieties are condemned as worthless, though of first-rate merit, and only requiring a skilful application of the knife to cause them to flower perfect, and in gorgeous abundance.

But it is not a question of flowers only. On pruning depends the formation of the trees; whether they be handsome, or irregular and misshapen. Regarding this branch of cultivation, then, as one of primary importance, I shall give myself full scope in discussing and illustrating it.

There are two seasons of the year at which pruning is usually performed; November, which is termed Autumn-pruning; and March, or Spring-pruning. Winter-pruning cannot be recommended, as there is a risk of the trees being injured by the action of wet and frost upon the fresh wounds. Thinning in Summer is advocated by some; and of this we shall have occasion to speak by and bye.

Which is the better scason for pruning, Spring or Autumn, is a point concerning which Rose-cultivators are not altogether agreed. To enable our readers to judge for themselves, it may be well to state the condition of the trees at each season.

In November, Roses may be said to be at rest; for although there is always a circulation of the sap, at this particular time it is less active than in spring or Summer.

As a proof of this, if we remove a Rose in Autumn, the roots are then, to all appearance, inactive; but if we remove the same in March, or often, indeed, earlier, we shall find numerous white rootlets, which have been newly formed, and which, sponge-like, are continually sucking moisture from the earth, thereby favouring the circulation of the sap, and promoting growth. Hence the different state of a tree in Autumn and Spring is, that at the former period it is sinking into or at rest; and in the latter rising into life and action. Now, it is evident, that the greater quantity of nutritious matter that can be collected in the immediate vicinity of the buds intended to remain for bloom, the more vigorous will the growth be, and the finer the flowers. Autumn-pruning favours this storing of the juices of the plants; for by cutting away the superfluous shoots in Autumn, the buds on those left behind are placed in contact with a greater supply of food, by the lessening of the number of the channels through which the sap has to pass: they increase in size, become plump, and, when Spring arrives, vegetate with great vigour. An earlier bloom is also produced than when pruning is deferred till Spring; and the shoots and flowers are formed with more regularity, and in greater abundance. It may, however, appear, that many of the Summer kinds, being more disposed to produce growing than flowering-shoots, Autumn-pruning is calculated to favour this tendency. But, to counteract this, the operation should be performed with less rigour at that season than when deferred till Spring.

But Autumn-pruning has its disadvantages, the greatest of which is this:-A few mild days in Winter often excite the buds of Autumn-prumed Roses, and they
push forth ; severe weather follows; the young shoots are frosted; and the bloom injured. This is more particularly the case with the Chinese, Noisette, Bourbon, Tea-scented, and the Hybrids of these kinds, which we shall term excitable, because they are quickly excited to growth. The Provence, Moss, French, Alba, and other's, rarely suffer from this cause, as they are not so readily affected by the state of the weather. Be it remarked, however, that the quickness with which buds are roused into action depends much upon how far the shoots were matured the previous Autumn : the less mature the more excitable. It will be perceived, then, that there is a difficulty in the way of Autumn-pruning, when applied to the excitable kinds, which can only be remedied by affording them protection from frost, should a mild December or January be succeeded by severe weather. But this would entail great additional trouble, and cannot always be done. Let us now turn to the other season.

The chief advantage gained by deferring pruning till Spring is, that the flowershoots are placed beyond the reach of injury by frost. If, during Winter, any buds push forth in unpruned Roses, it is those at the ends of the branches, and they will be removed by pruning. But there is an evil attendant on this apparent advantage. When pruning is put off till Spring, the buds placed at the extremities of the shoots are often found in leaf, and in the operation we cut off some inches from a shoot in this state. The tree is denuded of its leaves, and thereby receives a check; the sap, being in active motion, exudes from the fresh wounds. The lower buds find themselves suddenly in contact with a great supply of food, by the cutting away of the buds beyond them. There is a pause. Soon one or two buds at the extremity of the pruned shoots take up the work: they swell, and are developed apace, but all below remain dormant. Thus Springpruning is unfavourable to an abundant and regular development of branches and flowers, and, consequently, to the well forming of a tree. The flowers are also usually produced later in the season, and of less size.

Thus it may be said that each season has its advantages and disadvantages; but is it impossible to draw from both? We think not; and would strongly recommend that all but the excitable kinds be pruned in Autumn: thin out these at the same time, but leave the shortening of their shoots till Spring.

For pruning Roses two instruments are necessary, a knife and a saw. The knife I use is one with a straight blade: the saw is a double-toothed one, small, with a handle about a foot long and a blade of rather less length: the point is narrow, to admit of its being easily worked among the close branches. Armed with these we are ready for action; and it is necessary to bear in mind that they should be kept very sharp, in order that the work may be well done.

In France it was formerly the practice to clip the heads of the Standard Roses with shears; but I believe this practice is now abandoned there, and scissors used in their stead. I have tried the latter, but find, in my hands, the knife executes the work better, and more expeditiously; although, as to the latter point, some-
thing may depend on use. The scissors are, however, very convenient for gathering flowers, and for cutting off the flower-stalks when they grow shabby, or begin to decay.

There are three principal ends sought in Rose pruning, each of which carries with it a degree of weight, and should be kept distinctly in view; and let it be borne in mind, that on the judicious use of the pruning-knife their perfect accomplishment more or less depends : they are-

1. To maintain a plant or tree in full health and vigour.
2. To induce it to assume a form at once agreeable to the eyc, and advantageous for the development of its blossoms.
3. To secure an abundance of fine flowers.
4. To maintain a tree in full health and vigour.

We are told that the extraordinary vigour and beauty of some plants on which goats had been browzing first gave the ancients the idea of pruning. Certainly no one in the present day would dispute the advantages of it. Cultivators can only be at variance as to the mode of action, and the season at which the operation should be performed. If we leave a Rose-tree unpruned for one year, a great number of budis will burst forth, producing a vast quantity of blossoms, but both shoots and flowers will be comparatively thin and puny. If such tree be left unpruned for two or three successive years, it will become greatly enfeebled; the ends of the yearling shoots will die back for want of nourishment, and thus are reduced the number of buds capable of development during the subsequent year. Here we see one end of pruning naturally accomplished. But it is not sufficiently so. The flowers continue to degenerate, till at length they can be scarcely recognised : the tree dwindles, presents an unhealthy appearance, and pruning must be the first means applied for its restoration.
2. To induce a plant or tree to assume a form at once agrceable to the eye, and advantageous for the development of its flowers.

The formation of a tree is a point deserving of the closest attention; for if the form is inelegant it cannot but displease, however healthy and vigorous it may be, or what the degree of beauty the flowers it produces. Should the latter be forming small, their size may be increased by lessening their number, or by a timely application of manure-water; but for the improvement of the form of a tree there is no such ready remedy. The flowers, too, are but transitory: the shape of the tree is lasting; it remains to view after they are gone. To form a handsome tree, it is necessary to take it in hand when young: it is then easy to fashion, as taste, or a view to its permanent weal, may require. But if it has become straggling, from unskilful management or other causes, it is often difficult to re-model, sometimes requiring the patience and skill of two, or even three seasons. Before we commence the pruning of a Rose, whether it be a bush or a tree, it is therefore well to determine the shape it shall assume, and then frame all our operations with
a view to its accomplishment. Perhaps a form at the same time pleasing and advantageous is that of a half oval; for in such all the shoots and branches get a due portion of air and sunlight, and the under ones are not excluded from view, which they often are in round-headed trees. The varieties of spreading growth are most easily brought into this form, but the principle is applicable to all.

The next aim in Rose pruning is
3. To secure an abundance of fine flowers.

If the health and vigour of a tree are affected by pruning, the flowers, depending so much on these conditions, must also be affected by the same operation.

When about to prune a Rose, I first look to the name, that I may know the habit and character of the variety I have to deal with. I must know whether it is a summer or perpetual bloomer; a strong or weakly grower; and whether the flowers are produced fine from low, middle, and top eyes indiscriminately, or not. It is only by knowing and considering these points that we can prune with accuracy, and ensure full success.

It is an axiom in Rose pruning, that the more vigorous in habit a plant is, the more shoots should be thinned out, and the less should those which are left be shortened in. This has in view, in particular, the production of flowers in the most perfect condition. The eyes near the base of those kinds which form short shoots (especially the Autumnals), usually produce the best flowers; and in the vigorous growers we prefer, for the same reason, the eyes about the middle of the shoot, or nearer its summit if the wood be well ripened. But there is a question arising here which it may be well to glance at before proceeding further. All Roses make two growths in the year ; first in Spring, and again in Summer shortly after they have flowered. Some of the Autumnals start afresh at short intervals throughout Summer and Autumn; but we wish at the present time to speak of the Spring and Summer's growth only, and to ask which we should look to as calculated to produce the finest flowers.

When the shoots formed in Summer are well ripened we should prefer them, and for these reasons. The growth at that season is generally more rapid, and, in consequence, the shoots, although usually of less strength, are freer in the bark; the eyes are more plump and prominent, and well stored with the juices required to supply nourishment and promote growth. Nevertheless, it is only a question of flowers that would induce us to prefer the Summer wood; for when we look to the forming of the tree, we shall find it necessary, in most cases, to prune back to the growth of Spring, to keep the form elegant. Still it is well to bear in mind that the wood grown during Summer usually produces the finest flowers, that we may make the best of the materials beneath our hand; for it does sometimes happen that we may prune to the Summer's growth with advantage to the tree, and it is often a matter of indifference whether we do so or not.

With these remarks on pruning in general, we proceed to consider it in its special application, under the following heads, as applied to Standards and Dwarfs
(Div. I.)
indiscriminately: 1. Long Pruning, suited to varieties of vigorous growth. 2. Close Pruning, suited to kinds of small growth. 3. Pillar Roses. 4. Weeping Roses.

1. Long pruning.-This must be applied to the strongest growers: such are, the greater part of the Hybrid Chinese, the vigorous in the groups Moss, Damask, Noisette, and Bourbon, \&c., which form large heads, of rather loose, but not always inelegant growth.

If we remove many shoots from a strong growing Rose, or shorten the shoots in very closely, the result, as previously stated, will be a vigorous growth, but few or no flowers; and the shoots may be developed so gross, as to render the flowering for the subsequent year partial or void. This is more to be feared when dealing with Summer Roses and established plants, than with the Autumnals or newly-planted ones. To what endless disappointment have those fine old Roses, Beauty of Billard, Brennus, and Fulgens, given rise from not blooming freely. I have heard them branded as shy, bad bloomers, not worthy of place in any garden. "Grow they do," says the cultivator, " and that most vigorously, but refuse to shadow forth a single blossom." Now we would ask, Should the blame, if blame there be, be attached to the varieties? Is it natural for them not to flower? Or does this state of things arise from the system of cultivation? We sometimes see them produce abundance of flowers, and pronounce them perfect; then surely the former is not the case. They, and numerous others of like habit-vigorous growers - require long pruning: that is, a sufficient portion of the shoots should be cut away at their base, which is called thinning out, to allow a free admission of air and light into the heart of the tree; then the shoots which remain after thinning should be left long. If they are cut close, the eyes are developed as wood shoots, and not as flower-shoots; and this is the cause of their not blooming.

The treatment of plants from the bud will be alluded to elsewhere (see Budding) ; and as few comparatively have to deal with them in this rude state, I shall commence here with one-year budded plants, such as are usually purchased at the grounds of the Rose-growers. Of such No. 8 is a representation. Let us look closely at it, and, while doing so, bear in mind that it is a young plant. Now what is the object of paramount importance this year? Shall we look solely to the formation of the tree? Can we wait till Autumn for the flowers of the Autumnals, and till the next year for those of the Summer kinds? If we can, we shall receive a good return for doing so. Let us assume, then, the first effort to be to establish the plant, and to put it in a right course of formation. With this end in view, we prune more closely the first year after transplanting than at any subsequent period. Let us suppose the specimen before us required to take the shape of a half oval. What is the first step? It has been budded in two places, and has seven shoots. This is too many : we must therefore remove some. In this stage of a tree, pruning is not complicated : the number of shoots is few, and we see our way pretty clearly. Three shoots are thought sufficient to remain

No. 8.


Long Pruning, Stage 1.
here, and let us select any three which may seem most advantageously situated, and imagine the others absent. We may try this experiment on different shoots, if we are not satisfied with our first choice. To us the shoots shewn by the dark shadowing seem best placed, and our first step is to thin out the others shewn by the single lines. This renders the object clear, and, if it be one of the exciteable kinds, finishes Autumn pruning. In Spring we shorten the shoots that remain at the termination of the dark shadowing (a). The plant is pruned, and it may be said with truth, its appearance is not improved. But the question is not, How does it look when newly pruned? for when properly pruned it often presents a sorry appearance. The question is, How will it look when each of the shoots left triples or quadruples itself? Many cultivators spoil their trees by pruning in fear. It is well to be cautious, but it is seldom that the novice errs by pruning too much. But what considerations have guided us in our operations here? Seven shoots is the greatest number that should be suffered to remain on a young plant, and, in general, a less number is preferable. One or two should rise perpendicularly about the centre of the tree, and round this or these all others should be regularly disposed; and the more equal and greater distances that can be contrived from shoot to shoot the better. The shoots, wherever they arise, should have a tendency to grow from the centre; for if they grow towards it they will eventually cross each other, forming a confused and crowded head. In the above illustration it will be seen that every shoot has this tendency.

The aim in thinning should be to leave those shoots which are firmest and healthiest, provided they are placed at nearly equal distances. Care should be taken to cut the shoots close to their base: the wounds then heal over in Spring and Summer, and the trees are grown clean and perfect. If the cut is not made quite close, an eye at the base may burst forth and grow with extraordinary vigour at a point where not wanted, and rob the other branches of their food, and produce an uneven plant. Or should it not be so, the wood will die back, sometimes introducing decay into the heart of the tree. Sear snags and stumps, which are sometimes met with in old specimens, are due to the slovenly practice of leaving an inch or so on the bottom of shoots which should have been cut clean out.

When shortening in, the lowest shoots should, where practicable, be left the longest; and the others may be shortened in closer and closer as we rise towards the summit of the tree. The centre branch will, from its position, command a free supply of sap, and it is likely that it will maintain the ascendancy. Now the shoots shortened closest will, cateris paribus, produce the strongest growth, with the greatest tendency to rise perpendicularly, and thus the head is formed as desired. In shortening the branches, we should insert the knife at $b$, on the opposite side of the shoot to that on which the bud next below is placed; and we should cut in a direction slanting upward, about the eighth of an inch above the bud.

But let us turn to the next stage of the above plant, No.9. We left it pruned

No. 9.


Long Pruming, Stage 2.

No. 10.


Long-Pruning complete.
for growth, and the additional shoots now seen are the product of the past Summer. Pruning is now more complicated : there are more shoots to dispose of. The operator should examine the tree thoroughly before he commences. He should look not only at it, but through it, and this from two or three points of view. He should picture to himself this and that shoot removed, and what will be the comparative advantages to the tree. He thus studies the position and relative bearing of the shoots, and will soon discover which should be thinned out.

In No. 9 it is thought best to remove those shewn by the single lines, and the others are shortened in at the termination of the dark shadowing. It will be observed, the shoots are left of greater length than in the previous year's pruning, for which we give two reasons: First, The plant being established, will have a greater command of food from the soil; its growth is therefore likely to be more vigorous: Secondly, Having been put in the right course of formation last year, in this pruning we have an eye to the production of flowers.

It may appear to the looker-on that it would have been better to have removed the shoot between $c c$, and shortened in that shewn by the double line at $d$. This would have made the art appear more simple, and simplicity in Gardening operations (and indeed where not?) is a desideratum. But there was a cause for not doing this which the tree before us serves well to explain. The shoot marked $d$ had been produced late in the year, and, to use the technical phrase, was not well ripened-was little more than pith and bark. Such was not fitted to produce either shoots or flowers in good condition, and therefore it was removed. We also think it advisable to shorten in close at $e$ the centre shoot left last year, to keep the plant at home, that is, to keep the head compact. The best shoots having in this instance arisen from the base of the head, we do this to decided advantage. We follow on this system through subsequent seasons, continuing to thin and shorten the shoots; the tree, if properly managed, increasing in size for several years.

No. 10 is a fair illustration of a full-grown tree to which long pruning has been applied.
2. Close Pruning.-We have been speaking of pruning hitherto in its application to the most vigorous growing Roses: let us now turn to another class, and consider pruning as applied to the small kinds. Such are, the Damask Perpetual, the Chinese, the Tea-scented, the moderate-growing French and Bourbon, \&c., which make compact and neat, but rather formal heads.

No. 11 represents a young plant of this description. Here we have a crowded head the first year: the shoots are of less length than in our former specimen, but more numerous. We proceed to thin as before, but often less severely. The shoots may stand closer to each other here, because those they give birth to will be less robust, and produce smaller foliage. The shoots shewn by the single lines are not in this instance all removed because disadvantageously situated; many are

No. 11.


Close Pruning, Stage 1.

No. 12.


Close Pruning, Stage 2.
thin and weakly, wholly unfitted to remain. Even if they exist in a favourable position, it must be an extreme case to justify us in leaving them. Rather would we go a little out of the way to secure a good shoot, as such offers a better chance of perfecting our plan. Be it obscrved, the shoots left after thinning are shortened in closer here than in No. 8. This tree looks a complete stump, and, as a Summer Rose, will probably not bloom the first year. But supposing it to be an Autumnal, it will then assuredly bloom the first Autumn, and probably during Summer.

No. 12 represents this tree taken from another point of view, as it appears the next year. Here, as in long pruning, we see the addition of branches has been great, and we thin out in Autumn the shoots shewn by the single lines, and shorten the others where shaded, in Spring, as before. This we do on the supposition that it is an excitable kind: if not so, we complete the operation at once, by shortening in Autumn.

No. 13 shews a full-grown plant to which close pruning has been applied.
Most persons prefer plants budded in two places: we have therefore given examples of such. For my own part, I like a plant with a single bud best. It is enough for every purpose, and the head is more easily fashioned. It is thought not necessary to give an example of such ; for to know how to prune a plant properly with two buds renders the dealing with a single bud extremely simple.

It would seem well to mention here, that a modification of long and close pruning, which we call moderate pruning, is necessary for certain varieties.

No. 13.


Close Pruning complete.
Practice alone can inform us correctly which they are; and we give the result of our practice with some varieties in the Second Division of this work.* But it should be remembered that the plan of pruning must be regulated in some measure by the object sought. We have been treating of it with the view of forming handsome plants, and producing flowers in the greatest degree of beanty. But where the object is merely to enrich and ornament the garden by a great display; where the aim is to have a mass of bloom, and the individual size and form of the flowers are not of first importance; a less rigorous system should be adopted. Prune, then, only just so much as seems necessary to keep the trees in health and shape.

But there are particular forms which Roses are capable of taking, and these are in a great measure brought about by pruning and training. Such are Pillar Roses and Weeping Roses.
3. Pillar or Pole Roses.-Most kinds may be formed into pillars, short or tall; but the kinds usually understood by this term are such as will reach at least to six feet. There are many beautiful Roses which will do this; and some kinds, when established, grow as if there would be no end to them.

It is in this instance thought unnecessary to show the plant in its first year's growth.

No. 14 is a representation of a young plant possessed of five shoots. It had

[^8]
three only last year, and these were cut off nearly level with the ground soon after it was planted, to induce a vigorous growth. We now cut out the three shoots shewn by single lines, and shorten the others as shewn by the shadowing $(f)$. After pruning, the branches should lie at full length on the ground, and be fastened down with some little pegs to keep the wind from blowing them about. Owing to their recumbent position, the buds will break regularly their whole length, and by the end of April they may be tied up to the pole, either in an erect position, or made to entwine around it, as shewn in our drawing. We have introduced the poles here from the first stage, but this is a matter of indifference: a good stake will answer every purpose for the first two years.

In No. 15 we see the same plant as it appears the following year, before it is pruned. It has grown well, and there is a prospect of a complete Rose pillar being speedily formed.

We commence pruning at the bottom of the pillar by thinning out the vigorous shoots formed there. Two are thought necessary to remain to fill the base. This
must be our first aim; for it is easy at any time to extend the growth, and thus increase its height. We ascend the pillar, thinning as we proceed, till we reach the top. Here we select one or two of the strongest and best-placed shoots $g h$ to continue the ascent, and tie them up. From their position an abundant flow of the sap furnishes them with means of free growth, and favours the rise of the plant. The small lateral or side shoots are now cut back to three or four eyes. If in any spot, as at $i$, the pillar is thin, we cut a shoot back to one or two eyes, and thus get a strong shoot or two, by which we fill the vacuity the next season. We do not reckon much on flowers the second year, if desirous of perfecting the pillars quickly; but the third Spring after planting we find them of considerable height, and in every condition to produce an abundant bloom. Another year, and they blaze forth in all their magnificence.

We continue to follow this method of procedure from time to time, tying up the leading shoots till the pillar is covered the desired height, which perhaps should not exceed twelve feet. The lateral shoots of short growth with wellripened wood are those which produce flowers with the greatest certainty : they may be shortened in, to four or six eyes.

Pillar Roses send up almost invariably strong shoots from the base of the plant during Summer and Autumn. These, if not wanted, may be cut out as soon as discovered; but it is usually policy to leave one or two, as they may often be made use of to keep the pillar in a vigorous state when perfected, or to renovate it when decaying: by keeping up a constant supply of young shoots the old hidebound stems may be removed as they exhibit symptoms of debility, without marring the beauty or deteriorating from the effect of the pillar. The branches of Pillar Roses in general do not maintain their vigour for many years, which is probably owing to the little pruning they undergo; and these strong shoots, arising from their base, offer alone the means of their perfect restoration.

It is more difficult to prune a Pillar Rose than any other form: it requires closer attention, and thoroughly tests the judgment of the operator. When properly managed, and of full size, it should be well and regularly clothed with branches, and in the flowering season with flowers, from the summit to the base. When the tree is once formed, masses of flower being the object sought, and not individual size, it is necessary to guard the unpractised hand against over-pruning : it is on this side that he is most likely to err.

Every year, immediately after pruning, it is well to look to the poles to see that they are in sound condition; and at the same time tie the Roses afresh with small willow's, tar-twine, or twisted bast.

The annexed (No.16) represents a Pillar Rose of full size just pruned. Its main branches have not been twined round the pole as in the previous illustrations, but that practice is a good one, for it favours a moderate and regular growth.

We would just say a few words here in reference to Climbing Roses, which are considered by many as identical with Pillar Roses. I wish we could make a


Pillar or Pole Rose complete.
distinction that would be generally acknowledged. By Pillar Roses we would understand the erect-growing vigorous kinds: by Climbing Roses, those of twining and pendulous growth which are usually still more vigorous than the former. These do not make the best Pillar Roses, nor do the former make the best climbers, though each is often planted to fill the purpose of the other.

Climbing Roses are usually required for covering walls, fences, arbours, rustic arches, and the like. The first object sought is to cover well and quickly a given space. To effect this, pruning and training are directed. The system of pruning is but a slight modification of that just described : they require, perhaps, rather less of it. The first season that they are placed in the situation they are intended to occupy, each shoot should be shortened in to two or three eyes. The result will be a few vigorous shoots, sometimes extending to an extraordinary length, which will depend much on the season, the situation, soil, and attention paid to them; also on the habit of the variety. Thus the plant becomes
established. With regard to covering the space, remember, close pruning will produce a few vigorous shoots; long pruning a greater number of less vigour. Which are wanted? However the case may be, prune accordingly. Be it remarked, close pruning is not advisable, considered in reference to flowering; for the object here, as in Pillar Roses, is masses of bloom.
4. Weeping Roses.-Weeping Roses are the kinds of vigorous and pendulous growth worked on stems of four feet or upwards.

No. 17 gives a fair specimen of one of these the first year after budding. This plant has two buds, which are certainly prejudicial, not only from the obstacles they present to the perfecting of our design, but because they have been placed too far apart. As with Pillar and Climbing, so with Weeping Roses, the shoots should be cut in closely the first time of pruning, to induce a vigorous growth. In this case, the lower bud has given birth to the strongest and best shoots: we therefore remove the upper one, cutting the stem away just above the lower

No. 17.


Weeping Rose, Stage 1.
junction $a$. Having removed the upper bud, we thin out the two shoots shewn by the single lines, and shorten the others to the dark shadowing. Hence, shoots push vigorously; and the habit of the varieties being pendulous, they soon reach the ground.

No. 18 shews the growth of the tree the first year after it has been pruned with the riew of forming a Weeper. We continue the operation. We here find it advisable to shorten closer $a a$, the shoots left by the last year's pruning. In the next place, we cut out the shoots shewn by the single lines, and shorten the others a few inches only. From their drooping position the flow of the sap is equalized, and the eyes will break regularly nearly their whole length. Single blooms will occa-

No. 18.


Weeping Rose, Stage 2.
sionally be produced from them, and the following year these short bloom-bearing branches may be spurred; that is, pruned to about two eyes. Henceforth there is but little difficulty in bringing the tree to perfection. The main shoots should not be shortened till they reach the ground : prune the laterals only; when flowers are produced all along the branches from the head of the tree to the ground, forming a beautiful half-globe one mass of flower.

About the second or third year it is necessary to attach a hoop to the head of Weeping Roses, as shewn in No. 19, to keep the branches free from injury by the action of the wind, and to assist in arranging them properly.

I have sometimes seen wire-work, in the form of an umbrella, placed under the head of a tree intended to be trained as a Weeper. The shoots are drawn through this and tied down, and thus a drooping form is given to the tree. Sometimes, also, the shoots are tied into the stem with bast or tar-twine, or fastened down to pegs driven into the ground.


Weeping Rose, complcte.
No. 19 shews a Weeping Rose of full size, pruned and trained.
After a Rose tree, of whatever form or kind, is put into the desired shape, supposing it to be healthy and vigorous, we prune so as to increase its size every successive year. This must be done with the vigorous growing kinds, or they are overpruned. It should be done with the moderate growers; for as the roots extend their growth, and the stem increases in size, the plant is capable of supporting a larger head, and perfecting a greater quantity of flowers. This increase of size must be accomplished by thinning. Thin out well then; leaving shoots at the farthest limit of the plant that you can, to allow of its being well furnished from base to summit.

In pruning Roses that have attained to some age, it may be necessary to remove an old branch or two occasionally, to keep the head from becoming straggling or ill-shapen. As soon as any branch shews symptoms of decline, it should also be cut out. The saw will be found useful here, as well as in removing small shoots, which, from their position, it may be difficult to reach with the pruning-knife; also for cutting away dead branches, which should never be done with the knife, because it takes away the edge. In all cases where the saw is used, the cut should be made nearly close, and afterward pared down with the pruning-knife.

A few remarks on old plants which have been neglected in the early stages of growth may not be misplaced here. Such are often met with. Usually the fault (Div. I.)
has been, the fear of pruning too much : the branches have consequently become straggling, and the tree unsightly. To deal with these, the best planesis, to cut back some of the branches almost close to the base of the head, either main branches or yearling shoots, one here and there in different places. These will produce shoots near home, and, by pruning such close the following year, the head is brought into a more compact form.

No. 20.


Attempt to recover an old plant that has suffered from neglect, or too little pruning.
We have here a plant (No. 20), the form of which, we think, none will be bold enough to advocate. The flowers are produced just at the top of the branches, and numerous naked unsightly branches appear near the base of the head. But we must remodel this tree, and, in attempting this, we first cut the main branches off at $a a$. But, says the tyro, there are no buds left visible on the stumps. .True; but the practised hand knows well that they exist there, although not visible. It is our business to develope them. If we shorten in the surrounding branches tolerably close, leaving only that part of the tree which is shown by the dark shading, we shall succeed in doing this: the eyes, too, will most likely shoot forth with uncommon vigour. We view this as we should a young tree: our firstaim is to form it aright. This we may often do in one year, by the help of disbudding; without it, two years will be required.

Trees that have become weakly are generally much improved by close pruning; so are those small growing kinds which flower so constantly that it is rare to see
a shoot not terminated with flowers, at whatever season it may be developed. Of these, we may give Coquette de Montmorency and Pompon de St. Radegond, (Bourbon Perpetuals), as examples; and be it remarked that a rich soil is found as indispensable a condition for their well-doing as close pruning.

Close pruning, when applied to trees in a weakly condition, has great renovating power. I recollect well, when pruning some Roses in pots, noticing a plant of Archduke Charles (Chinese) in a very bad state. It had produced such puny flowers, that, during the flowering season, I more than once doubted whether the variety was Archduke Charles. The stock was hide-bound-i.e. had ceased to swell-and the shoots were stunted and scrubby. The latter were all thinned out but three, two of which were shortened in to three eyes. The remaining one, which was the strongest, was shortened in to one eye. The plant was afterwards treated as the others. The single eye on the strong shoot was developed with surprising vigour, and in the ensuing autumn I found the hide-bound bark was burst asunder by the swelling of the stock, and beneath a new bark was forming. The plant gradually improved, and is now as healthy as any in the collection.

To do justice to the Autumnal Roses, they should be pruned a second time in summer, just after flowering; or, if the summer flowers are not much regarded, just before flowering, by which their vigour and beauty will be increased.

The tender kinds, such as the Chinese and Tea-scented, are not unfrequently severely injured by frost. When this is the case, all the dead wood must be cut away; and I have pruned them level with the ground, and obtained an abundant flowering. Necessity, however, urged this, rather than prudence. A too vigorous growth not unfrequently arises from it, followed by its evil consequences, of late flowering only, unripened wood, and great susceptibility of frost.

It may be thought that root-pruning might be applied with advantage to those Roses which we choose to designate shy bloomers. I have not made the experiment; but think if a root or two of such kinds as Fulgens, Beauty of Billiard, Blairii, No. 2, and others of the Hybrid Chinese, were cut early in autumn, it might counteract the evils arising from improper pruning.

There are some Roses which, although at times very beautiful, do not in general expand their flowers. From some cause, which has been said to be too great a degree of fulness, the buds remain sealed at the top till they drop from decay. Examples of such are-Duchesse de Nemours, Melanic Cornu, (Hybrid Perpetuals), and Reine des Belges, Princesse Hélène du Luxembourg, (Teascented). On the Continent many of these take rank as the first of Roses: they are also excellent with us when grown in the forcing-house. Too much moisture, combined with great heat or cold, favours this tendency to fall prematurely, if it does not give rise to it, and thus the seasons have a great influence over these kinds. But another favouring circumstance is, too great a degree of vigour in the plant. The first cause is evident. Let us illustrate the second.

In the spring of 1844 a few plants of the Duchesse de Nemours (Hybrid Perpetual) were neglected: the soil in which they grew was neither manured nor forked; the plants were not pruned, the variety being counted worthless. They grew, but their vigour was greatly diminished; and what were the consequences? The flowers were produced in surprising beauty, the novelty and richness of the colour attracting every one's attention, and all who beheld admired them. But, mark! a plant that had been treated well, in common with other Roses, dropped every bud before expanding.

Pruning, in the light in which we have hitherto considered it, may be said to consist of thinning and shortening; but it has long appeared to me that thinning might be in part done away with, by practising disbudding ; i.e. rubbing or cutting out some of the buds when swelling in spring. The Rose, when in robust health, throws forth a great number of shoots during the season of growth, and the merciless havoc that is made with them in the pruning season must, by the waste it creates, and by the wounding of the plant, prove highly injurious. True; it is necessary some should be removed when such numbers are present; but why are more than will be required suffered to grow? It is questionable whether the theory of branches and leaves elaborating the crude sap, and thereby fitting for assimilation a greater quantity of food, is in favour of their developement. A few vigorous branches, with leaves healthy and well developed, must, I think, better accomplish this end, than a great number crowded together, the leaves becoming puny and sickly through the exclusion of air and light. Now, by rubbing out a portion of the buds when swelling, and others at any season when they may sprout forth in a position where shoots are not wanted, the remaining buds form stronger shoots; and thus, perhaps, a larger-certainly, a healthier-surface of foliage is the result. It is bad policy, then, to suffer more buds to be developed as shoots than are required for forming the tree, or for flowering; for by cutting away these when pruning, there must be a waste of the elaborated juices of the tree. But this is not the only evil : beyond this, the tree is sorely maimed in the operation. Now, if the nutritive matter, which has been supplied in the developement and sustenance of numerous branches, was confined to a lesser number, they would have been more powerfully developed, and the loss by removal, and the injury the tree suffers by thinning, would have been avoided. I believe disbudding to be the system best calculated to produce floners in the finest possible condition, to keep a plant in full health and vigour, and to bring it to the highest pitch of beauty. It has been successfully applied in the cultivation of other trees, and why should it not answer when applied to Roses? But it does answer, and, as one fact is said to be of more weight than a load of argument, I will relate an experiment commenced in the spring of 1844. I marked, at that season, from 50 to 100 Dwarf plants, which were budded in the previous summer; consequently, they were what is termed in bud. My object was, to test the efficiency of disbudding. They were intended to be grown in pots for exhibition, and each
plant possessed two sound healthy buds, formed closely together. Two buds were, in this instance, preferred, because the aim was to get large plants in a little space of time. So soon as these buds had shot forth about six inches, they were stopped, and, in due course of time, two, three, or four laterals were produced from each. These were drawn out to sticks stuck in the ground a good distance apart, that the shoots might receive the full advantage of the sun and air. The surface of the soil was once or twice loosened with a Vernon hoe. The Summer Roses, as was expected, did not flower; but the Autumnals showed their first flower-buds about June. Eyes continued to push forth, both from the laterals and the base of the first shoots, during the whole of summer. Now was the time to form the plants. Wherever an eye was seen to break in a position where thought superfluous or ill-placed, it was at once rubbed out, and the eyes bursting late in summer were invariably served the same. By October I had the satisfaction of seeing plants with from six to ten well-balanced shoots, vigorous, yet well matured. The leaves were larger, and retained on the plants longer than on others of the same kinds: the flowers were pronounced by competent judges to be superior to any of the kinds they had previously seen. In October the plants were taken up and potted. When pruning, I found very little work for the knife. The shoots were so adjusted that I had, with few exceptions, only to shorten them : thinning out, in which consists so much of the mutilation above complained of, was unnecessary. In the following summer they made nice round plants, some producing from six to twelve excellent flowers, and such were actually shewn at the Metropolitan exhibitions the first year. It is no exaggeration to say, that they were superior to others a year older which had been treated in the ordinary way. In disbudding especially, it is necessary to commence upon a plant when quite young. It may be made to assume the same form as recommended in general pruning, or any other the cultivator may desire. When first purchased, it may be necessary to practice thinning; but after this time the same end must be accomplished by the better means.

It is evident that the more vigorous in habit a plant is, other things being equal, the greater space must be left clear from bud to bud, to allow the vigorous shoots room to develope themselves.*

This, we say, is evident, and the converse is no less so ; but, be it remarked, with regard to the small growers, that they often produce buds so thickly on the shoots, that it is necessary to remove more in a given length than from strong growers.

* In the Nurseries where Roses are cultivated, not by scores or hundreds, but by thousands, it is impossible to apply disbudding, from the additional time it would require. In the general system of pruning, we have to look through our plants once only during the year; in disbudding, they will require looking through several times. This is the only objection I can see to the general adoption of the practice. Surely, to the amateur, it is none. Remember, that although scarcely any plant will flourish under so little care and attention as the Rose, yet, assuredly, none will repay more bountifully whatever may be bestowed on it.
(Div. I.)

We will exemplify this by the aid of the following engravings. No. 21 was sketched from a plant of Coupe d'Hébé (Hybrid Bourbon); No. 22 from a plant of Persian Yellow (Austrian).

No. 21.


Disbudding. Coupe d'Hébé.

No. 22.


Disbudding, Persian Yellow.

These are both young plants, and we commence by thinning and shortening, as previously explained, which is shewn by the single and double lines, as before.

The habit of the Coupe d'Hébé (No. 21) is erect, its growth vigorous, and the buds are formed at long intervals. The habit of the Persian Yellow (No. 22) is branching, its growth vigorous, and it is remarkable for the proximity of the buds to each other. I have now before me a shoot of the Persian Yellow, about a foot long, on which there are twenty buds; whereas one of Couipe d'Hébé, of the same length, has only six buds. But the Persian Yellow does not develope its branches so strong as the latter, and the foliage is not so large; therefore the buds may be allowed to remain closer together. On the Persian Yellow I rub out two, or sometimes three buds together, as shewn by the open buds in No. 22, and leave one, as shewn by the shaded buds. On the Coupe d'Hébé (No. 21) every other bud is removed. By the accompanying illustrations it will be seen that we remove seven or eight buds from a branch of the Persian Yellow, of equal length with one of the Coupe d'Hébé, from which we remove two or three buds only. But disbudding is not the work of spring alone; it must be attended to all through the growing season. The plants should be looked through at least twice before the time of flowering, and again soon after the flowering is over. The remains
of the flowers should be cut off, unless seed is sought, and only so many eyes be allowed to develope themselves in the second or summer's growth as the state of ${ }^{\circ}$ the tree and the considerations before mentioned may render advisable.

In rubbing out the buds, it is sometimes difficult to decide which to remove. The tendency of a bud should be almost invariably outwards; and in buds, as in shoots, the greater distance, in moderation, they are from each other the better. Should two buds threaten, when developed, to cross or crowd each other, the one taking the least favourable course of growth should be removed.

I have often heard amatcurs, when admiring some of the large specimens in the Nurseries here, express astonishment at their prodigious size, which they attribute to great age and good soil. But it must be told, that the system of pruning has as much to do in this matter as the age of the trees, or the soil in which they grow. The oldest of the large trees here cannot number more than twelve years, though there are others much older not half the size. Often have I seen Rose trees full of shoots, nearly all proceeding from the base of the head, owing principally to too close pruning. When the knife is applied, whether in autumn or in spring, the greater part must be removed, for there is not room enough for the whole to be developed. Now, it is not the production of a number of branches I consider injurious: if the tree is in a healthy and vigorous condition, this is natural and advantageous. But why should they not be obtained in such positions that they may be of permanent benefit to the plant-be made to extend its size, and render less thinning necessary? This may be done.

Two years ago, after having pruned a number of large specimens, in which I had observed this error, I watched for the bursting of the buds, with the view of practising disbudding. When they had shot forth about half an inch, I took a knife, with a sharp point, and commenced my search at the heart of the tree. From here I rubbed off, close to the bark, a great number of buds, leaving only such as, from their position, promised to increase the size or improve the contour of the head. If a bud was pushing where there was a gap, such was left; the others were thinned, leaving those which took a lateral and outward course of growth. Proceeding upwards, I cleared the centre of the tree pretty freely, leaving only just so many buds as seemed necessary to preserve it from becoming straggling. Towards the top and circumference, also, the buds, where crowded, or likely to cross each other, were removed. A month after the first looking over, fresh buds had broken, and thus was opened a prospect of more gaps being filled, the outlines of the heads being still improved, and their size extended. They were looked over again and again, and the same plan followed out. The growth was, in consequence, more vigorous than that of the previous year, and the flowers fine. On the fall of the leaf in autumn the succeeding course of action was apparent. The trees were pruned as usual, and there was little mind exercised in the operation-little thinning required-no necessity to look at the tree for some minutes before one could determine where to begin,
which, in my early attempts, I must confess I have often done, owing to the interminable interlacings of the shoots. The second and third year the same plan was followed, and the trees are now of handsome form, large and healthy, producing an abundance of good flowers. It should be stated that the first year they were taken in hand they were watered once a-week for two months with liquid manure. The sole reason for this was that the soil in which they grew had become impoverished.

We apply the plan of disbudding to Pillar and Weeping Roses as to others, by rubbing out any buds that may appear disadvantageously situated. In the youngest stage of the tree, the buds left to produce flowers and flowering shoots for the subsequent year should stand about six inches apart on the main branches: intermediate buds should be rubbed out. The laterals produced in after stages may also be disbudded; but, masses of flower being the object sought here, the practice should not be too freely resorted to.

A few words on Summer Pruning, or Thinning, seem called for before closing this chapter. If disbudding can be carried out, there is no need of summer thinning; but if it cannot, then the latter practice may be followed to advantage. So soon as the plants have done flowering, look them carefully over, thinning out the weak, unhealthy shoots, and even some of the stout and healthy ones, where they approach each other too nearly : each shoot left should stand free and exposed on every side. It is surprising to see how stout and firm the shoots become, and how the leaves increase in size after summer thinning.

The Summer kinds submitted to this treatment usually continue their growth by the elongation of the main shoots, the buds in the axils of the leaves remaining dormant; but with the Autumnals, the buds push forth the entire length of the shoots, and the second flowering is complete. The trees are improved in both cases, for the shoots grown at this period of the year will produce the finest flowers in the subsequent season.

## CHAPTER VI.

## ON HYBRIDIZING.

Gardening, especially that branch of it termed Floriculture, is acknowledged to be replete with interesting detail; and if one department is more fascinating than another, it is perhaps that of Hybridizing and Cross-breeding, with the view of raising Seedlings.

By Hybridizing is understood the bringing together of individuals of different species; by Cross-breeding, individuals of the same species; with the view of raising up new beings, differing from, and superior to, those already existing.

How different, how far less interesting to us, would be the forms which compose the Vegetable Kingdom, had the Creator made them incapable of variation! Not that we despise the wild flowers scattered over the earth's surface, decking mountain and meadow, met with in every hedge-row and valley wild: their beauty is cheerfully acknowledged. But Nature's plants are prone to improvement : by cultivation they increase in size; the flowers assume new forms, new tints; the fruits new flavours.

> "The carth was made so varions, that the mind
> Of desultory man, studious of change, And pleased with novelty, might be indulged."

And what a kind dispensation of Providence is this! how it strengthens the inducements to labour! What a charm it throws around the toilsome duties of a rural life, checring on the labourer with higher prospects than those of mere pecuniary reward! Compare the present breeds of corn with the wild forms of the cereal plants from which they are descended ; or the Pinks, Pansies, Dahlias, and Roses of our gardens, with their types growing naturally in various countries; and, while struck with the contrast, we wonder at the inexhaustible treasures of Nature, and admire the improved races, let us award to man his humble duc, remembering that these alterations are not the work of Nature unaided and alone, but are in greater part owing to the untiring perseverance and assiduous care of the plant-cultivator.

The raising of seedling plants is indeed a delightful occupation. The work is varied; there is such a wide field for speculation and experiment; and the pleasing state of expectancy in which the operator is kept as to the results of the turn he gives to the workings of Nature surrounds it with more than ordinary interest.

The improver of plants is, so to speak, moving continually amid ideal scenes;
he works in an enchanted sphere; he is striving to raise up new forms, knowing what he wishes, what he works for, but not what he will obtain. The seeds ripen beneath his care, and he sows them; but as to the issue of events, he remains in ignorance profound, until, by the flowering of his pets, the magic wand of Nature dissolves the spell, and realizes or dissipates his hopes. And, may we be permitted to ask, is it unworthy of the chief actor in these terrestrial scenes to employ his hours of relaxation in striving to diversify and increase the beauty of the natural objects scattered around him, thereby holding up to view the wonders of the Infinite, and administering to the necessities and enjoyments of his fellow-man? As a recreation, who can object to it? Its tendency is useful. It is harmless, healthful, and exhilarating, and calculated to soften down the asperities and ills of life. There is philosophy in striving to improve the simple Pansy, counted as a weed in our corn-fields, as well as in turning the attention towards the amelioration of those more valuable plants which constitute the food and raiment of man.

But it is with the Rose we have to deal at present, and let us turn immediately to the subject.

The improvement of this flower by cultivation has been wrought out chiefly by foreign cultivators. But why seedling Roses should not be raised in England, is a question I could never yet determine. I know it has been said by some, "We do not understand the business;" by others, "Our soil is not suitable;" and, again, "The climate of England will not admit of the seed ripening perfectly." But these are seeming objections-mere obstacles of the imagination, the semblance of which is greater than the reality. For, if our soil is not naturally suitable, we can render it artificially so: if we do not understand the business, surely we can learn. We are not isolated from our fellowlabourers; we cannot be so satisfied with our own doings as to refuse to learn a lesson from them: or, even were it so, the great book of Nature is open to us all, in which "we may read, and read,

> And read again, and still find something new:
> Something to please, and something to instruct."

To me the difference between the climates of England and France seems the only point worthy of consideration; and that difference, although great, is not of such magnitude as to raise an insuperable barrier against the successful prosecution of the art.

If we compare the climate of London with that of Paris, where the greater part of our modern Roses have been originated, it will be found that rain is less frequent in Paris during Summer and Autumn; there is also a greater intensity and duration of sunlight there, which increases the temperature of the atmosphere and soil, and thus accelerates the period of maturity.

The above is also true as regards the climate of Angers and the south of France, only in a still greater degree; and who would doubt those districts being emi-
nently more favourable than Paris for the pursuit? No one. But suppose the Parisian growers had rested contented with these reffections, what position would the Rose now hold in the floral world? And if English cultivators had joined ardently in the pursuit, who can say to what pitch of beauty the Queen of Flowers might have attained?

What country ranks equal with England in the art of Gardening? yet how many are there more favourably circumstanced. This, it may be said, is partly due to the great liberality of its patrons, and to the admirable contrivance of its plant structures. But still the English cultivator has great disadvantages to contend with, especially in raising plants under glass. But obstacles surmounted encourage him to go on: he continues to battle with the elements, and his intellectual powers seem to brighten in the contest. He produces Grapes superior to those brought from the Land of the Vine, and Pine Apples infinitely so to those of West-Indian production. These are facts known to every one; and will it yet be maintained that he cannot raise seedling Roses?*

But, it may be said, Hybridizing and Cross-breeding are not the work of the gardener. It requires an uninterrupted course of study to enable any one to carry them out with success; and his multifarious duties render it next to impossible that he should pursue this. There is much truth in this assertion, and the nurseryman may certainly put forward a similar plea. The weight of the burden, then, would seem to rest with the amateur. And it has always appeared to me that his is the proper sphere for the raising of seedlings, and that greater objects are accomplished in this line when pursued as a relaxation than as a profession. If the amateur has had less experience in gardening matters, this seems compensated for by a less divided attention and greater assiduity.

If the Tea-scented and Chinese be the kinds the operator prefers seeding from, it will be necessary to grow them under glass, as they are longer in bringing their seeds to maturity than most other kinds. The majority of seed-bearers, however, need no such protection: they thrive and complete their work perfectly out of doors.

It is now about six years since I took up this branch of culture, and although I have yet reaped no reward I am still sanguine of success. I started a tyro, with

[^9]little knowledge in store, and have had to pay for learning by the way. The first and second years of my practice I gathered the seeds promiscuously during winter, siezing every pod that appeared large and plump, whether ripe or green. The production of these sowings was a motley group; among them some good double Roses, and many very brilliant-coloured semi-double ones; but nothing worth bringing before the public-no star of the first magnitude.

The subsequent year I took one step farther, and kept the seeds of each group separate, to ascertain to what extent the offspring departed from the parent in external characters. This was done for two years; and although but few of the plants raised from these have yet flowered, enough have done so to afford a little insight into the probable results.

According to the statements of M. Boitard, there is scarcely any limit to the variation of Roses produced from seed. He affirms that M. Noisette, a French cultivator, has never sown seeds of the Chinese Roses (R. Indica) without raising some Scotch Roses (R. Spinosissima) from them. He states, This fact is not supported by a solitary occurrence, but has been frequently observed by that cultivator, and is further attested by the evidence of M. Laffay, who raises seedlings on an extensive scale, and has this year between 200,000 and 300,000 .

It were easy to conceive a mistake occurring in the gathering, storing, or sowing of the seeds; but when the facts have been noticed repeatedly, and by different individuals of known probity and great horticultural attainments, the evidence, we think, must be deemed conclusive.

There are thousands of seedlings here, raised from seed sown last March, which I have been searching through to see if any thing corroborative of the above statement can be brought formard; but I have met with no success. I find the variation of character greater than $I$ had expected ; and many of the seedling plants approach nearer to the wild forms than to those from which the seeds were gathered. The offspring of all kinds does not vary in the same degree. The plants raised from seeds of the Chinese are all Chinese or Tea-scented; those from the Bourbons seem Bourbons, Hybrid Bourbons, and Hybrid Chinese; and while the French Roses (R. Gallica) appear true to their kind, the Perpetuals have given birth $t$ Hybrid Chinese and Hybrids of other Summer Roses, scarcely one having proved an Autumnal bloomer.

Since observing and penning the above $I$ have met with a remark of $M$. Desprez, the celebrated Rose amateur at Yebles, that he has sown thousands of seeds of Du Roi (Crimson Perpetual), and never obtained a Perpetual Rose. In all, the characters of Rosa Gallica are visible. But we must remember this variety partakes largely of the nature of the Gallica or French Rose.

In examining my seedlings I find a seed of the Moss du Luxembourg has produced a French Rose; a seed of William Jesse (Hybrid Perpetual), a blush Hybrid Chinese; a seed of Mrs. Bosanquet (Chinese), a pink Chinese resembling its parent in every respect save colour; Chénédolé (Hybrid Chinese) has
produced a brilliant-coloured Hybrid Perpetual, and a numerous progeny of Great Western retain exactly the foliage and habit of that variety. As the latter have not flowered, it has yet to be seen whether they will vary in this respect. Tea Goubault crossed with Bourbon Souchet has produced two Summer Roses, the one having the characters of the Hybrid Chinese, the other those of the Hybrid Bourbon.

My friend M. Laffay once told me that he raised many of his splendid Hybrid Perpetual Roses from Athelin and Celine (Hybrid Bourbons), crossing them with the free-flowering varieties of Damask Perpetual and Bourbon. A few years since he took up a new idea-that of obtaining Hybrid Moss and Perpetual Moss Roses by crossing the Moss with the Hybrid Bourbon and Damask Perpetual. He has since raised several seedlings, some Perpetual Moss and some Hybrid Moss, the latter possessing the foliage and vigour of the Hybrid Bourbon Roses. The Princess Adelaide (Moss) was obtained in this manner. On the success of these and the like unions he is very sanguine, and says, much as he has done with Roses, he anticipates doing far more, and raising up such hybridizations and novelties as shall astonish the floral world. As he has already done so much, his intentions and prophecies deserve our respect. But why should France labour alone in this field? why should she have all the fame, reap all the profit? Cannot we assist her? Time is short. M. Laffay has already past the meridian of life, and the raising of seedling Roses is a tedious operation.

If the Hybrid Bourbons crossed with the Moss produce perfect seeds, we may presume that the intermixing of the pollen grains of other species will be productive of like results. This, it will be seen, demolishes the idea of the necessity of restricting ourselves to the crossing of individuals of the same group. Not only may we choose the parents from different groups, but from different species. Where, indeed, is the line of demarcation? There appears no limit to the field of labour. We have to prove by actual experiment what can and what cannot be done.

It should be known, in choosing varieties for this purpose, that the least double kinds do not always perfect their seeds best. Such, upon less mature consideration, might appear to be the case, and has been asserted to be so, which error must have arisen from the want of close observation. It does not depend so much on the degree of fulness in a Rose, as upon some other cause to me altogether inexplicable, and not to be interpreted even by the acknowledged laws of the effects of hybridization; for some Hybrids seed freely, whereas others are sterile, although of the same origin and apparently similarly constituted. That the power of producing perfect seeds does not depend on the degree of fulness, may be established by the fact, that Pourpre fafait, a mongrel-bred Bourbon Rose, and others, too full to open their flowers at all times, ripen their seeds, although very many semi-double varieties rarely form a seed-pod. That it does not depend on their being Hybrids,
(Div. I.)
may be inferred from the fact, that many of the Hybrid Chinese Roses, which are decided Hybrids, seed freely.

I have, by the aid of the microscope, examined numerous flowers, with the view of solving this difficulty. I have arrived at conclusions which may be considered sufficient for practical purposes; or what will prove still better, may induce others interested in the matter to push on the inquiry.

The flowers were divided into three classes. The first class examined was that which shewed no disposition to seed, where the seed-vessels did not increase in size after the falling of the petals. In this case $I$ found the pistils huddled together, if I may so express myself, and apparently sterile; or, if not so, petals usurped the place of the pistils and stamens, extending into the ovaria or seedvessels. It was evident, then, that such could not seed.

In examining the next class, where there was a disposition to seed, where the seed-vessels increased in size after the falling of the flowers, but withered before arriving at maturity, I found the pistils placed separately, and they appeared perfect and healthy; but the stamens were either so few or so encased within the petals, that the pollen could not escape, and thus the flowers remained unfertilized. In some cases the flowers were pendant; owing to which position, and the relative length of the pistils and stamens, the latter rising above the former, the pollen fell away from, rather than upon, the pistils. In other cases, where the flowers stood erect, the pistils often rose above the stamens, when the same consequences were likely to ensue. Flowers of this kind will occasionally produce a pod of perfect seeds, which may be attributed to accidental fertilization, the conveying of the pollen by the insect tribe, or other canses.

The next class taken in hand was that which ripened its seeds freely.
The flowers here were found to have both stamens and pistils perfectly developed, the former abounding in pollen, which, in a more advanced stage of the flower, was seen plentifully scattered over the stigmas, whose cup-shaped summits were distinctly visible.

From these facts I draw the following conclusions :-1st, That certain varieties are sterile; incapable of forming perfect seeds under any circumstances. Of these I find such kinds predominate as roll the petals inward, the centre of the flower being quartered in the manner of a crown. In others the pistils are weak or imperfect.
$2 d l y$, That many kinds, where the pistils are perfect, which in their natural state form seed-pods that wither before arriving at maturity, may be induced to perfect their seeds by artificial impregnation. This class of Roses is the best for him who intends raising seedlings to choose his female parents from, because there is little here to interfere with, mar, or counteract his plans. There are certain kinds which must not be confounded with the above-kinds which, owing to the length of time the seed-vessels are in arriving at maturity, never perfect their seeds in this country.

3dly, That those kinds which we find seeding abundantly in their natural state are self fertilized, and that their abundant production of seeds is due to this point mainly, the more perfect development of the sexual organs, especially the polleniferous parts of fructification.

Waiving for a moment the distinctions above shewn, I shall collect here a list of twenty kinds, which ripen their seeds perfectly in this country in ordinary seasons:-Chénédolé, Marechal Soult, Duke of Devonshire, Général Allard (Hybrid Chinese) ; Athelin, Great Western, Charles Duval (Hybrid Bourbons); Du Luxembourg, Celina (Moss) ; Madame Laffay, Comtesse Duchâtel, William Jesse (Hybrid Perpetuals); Harrisonii (Austrian Brier); Bouquet de Flore, Malvina, Cérès (Bourbons); Gloire de Rosomène (Rose de Rosomène); Rosa Mundi (French) ; Russelliana (Multiflora); Splendens (Ayrshire).

These varieties are chosen because easy to deal with, and with them, or any portion of them, the operator may commence. He will see quickly the effects of his labour: there will be no disappointment, and he is thus encouraged to go on. He may then add the less certain and more desirable seeders at subsequent periods, when he has acquired, by practice, more knowledge of the art.

Having chosen the varieties, they should be planted in the sunniest spot in the garden, in a soil not too rich ; for however favourable this condition may be to the production of fine flowers, it promotes a too vigorous vegetation for the perfect development of seeds. In pruning, the branches should not be shortened in very closely. Long pruning is most suitable here.

But the planting season has passed away, and a glance at our seed-bearers satisfies us they will soon be in flower. It will be but fair to suppose that they have had more, rather than less attention paid to them than plants in common, for they are more than usually interesting. The soil ought to have been hoed occasionally during spring, and watered during dry weather. The caterpillar should have been closely sought for by hand, and the aphis got rid of by syringing repeatedly with soot-water or tobacco-water.

It is seldom that all the flower-buds can be developed to advantage, and as they increase in size it will be seen which had better be removed. Secure a good portion of the earliest and boldest buds, but not all of such : leave some in different stages of forwardness, that the work may be spread over a greater extent of time. Wherever buds are seen forming imperfectly, or in an unfavourable positionwhere they do not obtain the full sun-remove them at once.

Before we commence hybridizing, it is necessary that we should have fixed ideas of what we are going to do: we should have certain objects distinctly before us, and for the realization of those objects we must work. Without this, we cannot expect to obtain a full measure of success.

As a first step towards the attainment of these ends, let us consider what constitutes a good Rose, and fix the results of this inquiry firmly on the memory.

Those properties of the Rose to which Amateurs attach the greatest importance are-1. Habit of the trees; 2. Form of the flowers; 3. Colour; 4. Scent; 5. Freedom, constancy, and duration of flowering.

1. Habit.-The growth of a tree should be free, not dwindling or delicate. It may be considered immaterial whether it be pendulous, branching, or erect, as each growth is desirable for certain purposes. Handsome foliage is important, and should be kept in view under this head. The offspring of the tender Roses may also be rendered less susceptible of frost by intermixing the latter with the hardiest varieties of the same or kindred groups.
2. Form.-A Rose may be equally good, whether cupped, globular, compact, or expanded. But of whichever form it may be, the petals should be thick and smooth, and the outline circular.

Annexed are representations of four Roses which may be considered models of their respective forms, which are explained at pages 8 and 9 , Division II. Nearly all Roses may be brought under one or other of these forms: there are some few whose petals reflex in the full-blown and decaying stage of the flower, but we think the reflexed form untenable for a young bloom.
3. Colour.-This, of whatever shade or tint, should be clear and full. The thick-petalled Roses usually present us with the richest tints, owing, I presume, to the greater body of colour: such are, therefore, desirable for this reason, as well

No. 23.


Globular. Général Allard.

No. 24.


Cupped. Comtesse Duchâtel.

No. 25.


Compact.

No. 26.


Expanded.
as on account of holding their flowers perfect a longer time than others. Need we add the desirableness of varying the colours of the groups?
4. Scent.-All Roses should be sweet. We cannot dissociate fragrance and the Rose.
"The Rose of brilliant hue, and perfumed breath,
Buds, blossoms, dies, and still is sweet in death."
There are, indeed, few kinds altogether scentless, although the degree of fragrance varies remarkably.
5. Freedom, constancy, and duration of flowering.-Some Roses are most profuse bloomers, presenting a splendid effect on the tree, but when viewed separately they are poor and flimsy. Others produce a less quantity of flowers at one time, but a regular succession, from which a good Rose may be gathered at almost any time in the season of flowering. Then the flowers of some are very transient, lasting but a day, although others will retain their form and colour for a week. These properties are inherent, for all kinds are not influenced alike by the state of the weather. We should seek to combine those kinds which possess the above-named properties in the most eminent degree.

The above, then, are a few broad principles, which, duly considered and acted upon, seem likely to lead to the farther improvement of our flower.

The question next arising is, Do certain properties proceed more from the one parent than from the other? and, if so, which and what are they? If we could
(Div. I.)
ascertain this, we might then work by rule. It is the opinion of some Vegetable Physiologists that the offspring assumes the foliage and habit of the male, while the flowers are influenced more by the female parent.* These may be the rules, but there are exceptions to them; and it would appear that there is nothing yet made known that can be taken as a correct guide in the matter. But if, in hybridizing, the operator follow the dictates of his own reason, and closely watch the results of his labour, he will, in all probability, not absolutely fail, and be at length enabled to found a theory of his own. Until he has done this, he must be content to work by the light of others, or grope his way in darkness.

That certain cultivators have acquired by practice sufficient knowledge to enable them to attain almost to a given object, is my firm belief; and this is founded on the frequent appearance of the kind of plant, or an approach to it, that has been pronounced a desideratum, A case occurs to me which will serve to illustrate this remark. Until lately we had no very dark or very light Bourbon Roses ; nearly all were of a rose or lilac hue; but there was a cry raised for dark ones. Proserpine first arose, and by her beauty captivated every beholder. Next came Paul Joseph, darker still, and still more beautiful. Then it was noised abroad, and proved true, that one raiser was in possession of several very dark varieties, and some pale-coloured ones also appeared about the same time. Now what inference can we draw from these facts, when we consider that similar varieties proceeded from different quarters, unless it be that the skill of the cultivator was directed, and that successfully, towards originating them.

The dark Bourbon Roses, of which we have just spoken, are those introduced to England in 1843, under the names of Souchet, Charles Souchet, Dumont du Courset, Gloire de Paris, Princesse Clémentine, Souvenir du Dumont d'Urville, and Comte de Rambuteau. These were all raised from seed by one individual. I remember visiting the establishment of M. Souchet at Paris, where, alone, these Roses were to be seen, in the summer of 1842 ; and although a violent thunderstorm had just passed over the city, producing the usual consequences to the denizens of the garden, I could see from the wreck they were a splendid lot of Roses. There were at that time twelve varieties, the one a light-coloured one (Madame Souchet), but nine only were introduced to England. What became of the other three I could never learn. Probably they proved of little merit, and were therefore not offered to the public.

Now, with such an example as this before us, need we sigh over the improbabilities of improving or extending the range of colour in any other class of Roses? Surely not. Will not the same skill which produced dark and light Bourbon Roses prove adequate to any future reasonable demand?

But the plants are in flower, and there is no further time for talking: we are

* See Theory of Horticulture, p. 330.
now called upon to act. Keeping in mind the points recently advanced, let us next inquire, What is there desirable among Roses that we do not already possess? The answer to this question will be, the things we should endeavour to obtain. But shall we be satisfied with merely crossing the varieties, and gathering and sowing the seeds indiscriminately; or do we wish to know the results of the turn we are seeking to give to the workings of nature? I think this knowledge is desirable, and it certainly heightens the interest of the work. To carry it out with little trouble, it is a good plan to obtain some thin sheet lead, and cut it into strips an inch long and a quarter of an inch wide. On these may be stamped figures, from 1 to an indefinite number, and, as each flower is crossed, one of these numbered leads is wound round the flower-stalk. The number is then set down in a book, and the name of each parent, with the object in view, are entered opposite the number.

Here is an extract from my note-book of 1846.

| Number. | Female Parent, or Seed- <br> bearer. |
| :---: | :---: |
| 17 | Harrisonii. <br> (Austrian.) |
| 21 | Général Allard. <br> (Hybrid Chinese.) |
| 42 | La Reine. <br> (Hybrid Perpetual.) |

$\begin{aligned} & \text { Male Parent, or Fer- } \\ & \quad \text { tilizer. }\end{aligned}$
Copper Austrian.
Madame Laffay.
(Hybrid Perpetual.)

Du Luxembourg.
(Moss.)

Object in view.
A double copper Austrian Rose.
To invigorate the habit, and perfect the tendency of Général Allard to flower. in the Autumn.
To obtain a large and glo-bular-shaped Moss Rose.

In No. 17 fulness and colour are the points to engage our attention. The colour of the Copper Austrian Rose is distinct and beautiful, but the flower is single. I want a double one. The Harrisonii is double, and nearly allied to the other. I choose it for the female parent, because it is the best seed-bearer. This seems to me the most reasonable means to pursue in order to accomplish this end.

In No. 21 the female parent, Général Allard, is a model in form. I am satisfied with the colour, but it is a delicate grower, except when young, and not a free autumnal bloomer. I am seeking to remedy these defects, and cross with Madame Laffay, which is nearly of the same tint, and has the desired properties, deficient in the other, abundantly developed.

The subject of No. 42, La Reine, is an extraordinary Rose. I hybridize it with Du Luxembourg, with the view of obtaining a large, red, globular-shaped Moss Rose. As one parent here is an autumnal bloomer, there is also a chance of some of the offspring becoming such.

But we may proceed from individuals to classes. Two very desirable classes of Roses in prospect are Hybrid Moss and Perpetual Moss; and I look more to the hybridizing of the species for future improvements of the Rose, than to mere cross-breeding. The latter has already been pushed so far that fresh sources must
be opened before any thing great and new can be accomplished. Thus it is, that while we view as doubtful certain things talked of, we hail with delight the prototypes of the Hybrid Moss and Perpetual Moss, which already appear in the horizon. We have some; and what appears the most reasonable means to pursue to increase their number? The Hybrid Moss, it would seem, may be obtained by hybridizing the Hybrid Chinese and Hybrid Bourbon with the Moss kinds, or vice versâ ; the more double and mossy the parent Moss is the better, that the offspring may produce full flowers, and not lose the mossy characteristics.

The Perpetual Moss would appear easiest obtainable by hybridizing the Hybrid or Damask Perpetual with the varieties of Moss, or vice versî, using the Perpetual Moss kinds already obtained, on either side, according to whether they produce seeds or pollen.

Of other Roses wanted may be instanced striped Hybrid Perpetuals, which may probably be obtained by bringing the most constant flowering varieties of that group in union with the Rosa Mundi, or any of the striped French Roses. Then there are no striped Hybrid Chinese or Hybrid Bourbon Roses, which we should expect to obtain from the union of the striped French with the varieties of Bourbon or Chinese. There is no striped Moss Rose worthy of the name. Might not such be obtained by working various of the Moss kinds with the Rosa Mundi? There are no striped autumnal Roses; and few autumnals of growth sufficiently rapid to form high pillars. Here is a field for experiment! Is there not a fair chance of working out the former by crossing the striped summer kinds with the freest-blooming autumnals? and of obtaining the latter from between the most vigorous growers of both seasons? We hear talked of Yellow Moss and Yellow Bourbon. As an attempt to obtain the former, cross the palest Moss Roses with Emerance (Provence) ; for the latter unite the yellowest tints of the Tea-scented with the buff and most colourless Bourbons. But we have not space to pursue this argument further. We need not confine ourselves to the instances above quoted: they are merely given as examples. The work may be varied ad infinitum: any thing that reason may suggest the head and hands may work for.

It is desirable, before crossing or hybridizing, to see if the flowers about to be crossed have any stamens. If so, they should be cut away with a pair of roundpointed scissors, just as the flowers expand. It is not known for certain whether superfoetation can occur in plants, but it is well to provide against it, especially where it can be done with little trouble. The plan I adopt when crossing is, to bring a flower of the male parent to the seed-bearing tree. If the weather be calm, I cut away the petals of the former, holding a finger over a flower of the latter, upon which I strike the flower deprived of its petals. The sudden shock drives the pollen into the other flower, and the work is done. But if the wind be high, this plan will not do. It is better then to collect the pollen on the end of a camel-hair pencil, and convey it thus to the styles of the other flower.

When the flowers have passed away we shall soon have the satisfaction of seeing the sced-pods swell; and as they ripen it will be well to devise some means to protect them from birds. I have no direct proof to adduce that they eat them; but I have often seen the greenfinch feasting on the Sweet-Brier hips, and should these, by any chance, become scarce, or fail, he probably might not object to this slight change of diet. It is important to leave the seed-vessels on the trees as long as possible, and they never should be gathered until quite ripe. It is not enough that they are red: they should, if possible, hang till they grow black. So soon as gathered, let them be buried in the earth, and, if they have been numbered, pack them separately in small pots, interring the whole in a large pot, or in the ground.

## CHAPTER VII.

## on Cleaning and sowing the seed, and the subseQUENT TREATMENT OF THE SEEDLINGS.

In the last Chapter we left the seeds stored up for winter, that drear season at which the Flower Garden presents but few attractions. Its denizens, stripped of their gay attire, are sunk in repose; often bound fast in icy chains; all vegetation sharing in one general imprisonment, waiting for the balmy breath of spring to release them from their slumbers, to burst forth endued with fresh life and vigour. It is for this latter state of things we must watch; for it is advantageous to sow the seeds in the earliest of spring. The end of February or beginning of March is a good time; but should the frost be too severe then to admit of the work being done well, we must delay the operation until a fitting opportunity occurs.

When removing the seed-pods from the boxes or pots in which they have been stored, the seeds should be rubbed out between the hands previous to sowing. Some pods that are hard, or were not fully ripened when gathered, will require stronger measures to separate them. These may be rubbed through a coarse wire sieve, the hard coating of the seeds protecting them from injury in the process; and if any are found proof against this, they may be crushed beneath a rollingpin, or slight taps of the hammer.

So soon as the seeds are broken up they should be laid out in the sun and air to dry; and when sufficiently dried it is easy to rid them of their pulp and external covering by sifting and winnowing in pans. The seeds then are sufficiently clean for sowing ; and in what manner shall this be performed?

The French growers sow principally in the open ground, either in beds or in drills by the sides of walks; but M. Hardy, of the Jardin du Luxembourg, sows largely in frames. I remember seeing there, about four years since, a vast number growing in a wooden frame, the most of them apparently varieties of Rosa Indica, and their healthful appearance and vigorous growth sufficiently attested the aptitude of the treatment.
If a frame cannot be spared for the purpose, the tender kinds, at least, should be sown in pans, thoroughly drained, and filled with equal parts of leaf mould and loam well mixed together. After the seeds are sown they may be watered, and covered over with about half an inch of the same soil, sifted, and mixed with
a little sand. The pans must now be set in the best spot we can find for them; in a cold frame or green-house, if accessible, where they should be kept in a state of equable moisture. Here they will vegetate as out of doors, and in autumn or spring may be transplanted as the others.

If it be the intention to sow in the open borders, a sunny but sheltered situation should be chosen: the aspect should be east, that the young plants may not be fatigued with the afternoon's sun. When preparing the ground for sowing, the soil should be well loosened with a fork or spade to the depth of eighteen inches or two feet, and made light and rich, the top being broken up fine, and laid level with a rake. If drills are preferred, draw them about six inches apart: if broadcast sowing, the ground is already prepared.

It is advisable to sow rather thick, for, in general, not one-fourth of Rose-seeds vegetate, and of these only a portion the first year. After the seed is sown, the earth should be trodden down or beaten with a spade, and watered, if dry, and covered afterwards with from half an inch to an inch of light free soil. Care must be taken to keep the earth moderately moist. About April some of the seeds will germinate, and others will continue to do so throughout the summer and autumn. So soon as they are seen peeping through the soil means must be taken to protect them from slugs, birds, and worms.

Slugs have a great liking for seedling Roses, and will, unless prevented, eat them off close to the ground when rising, which usually involves their destruction. To guard against these pests, scatter soot or lime over the bed, which acts as a safeguard, and at the same time promotes the growth of the plants. Birds will occasionally pull them up when just sprouting forth; and whether this is done to satisfy the palate, or merely from the love of mischief, I cannot determine; but however it may be, we are equally the sufferers. The best scare-crow I can find is glass. Let a stick be stuck in the ground in a bending position, from the end of which two pieces of glass should be suspended with bast or twine, so that they dangle in the air: striking together with every breeze, they keep up a musical chaunt around the seedlings which the feathered plunderers seem unable to account for, and the most daring depredators are content to sit and chirrup at a distance.

Worms are often a great nuisance among seedlings, throwing up heaps of soil, which smother the young plants; and sometimes they drag them into the earth, which destroys them. The best remedy here is lime water, applied two or three evenings consecutively in dry weather. If the seeds vegetate very early, the young plants must be protected from the spring frosts; and hooping the beds over with osiers and covering with a mat offers perhaps the simplest and most efficient means of doing this.

So soon as the seeds vegetate, the young plants require constant attention as to shading, watering, and weeding, as well as protection from their enemies. This will be cheerfully given, when the cultivator reflects that, by this care, many of the autumnals will be induced to flower the first year. This, however, holds
good only with the autumnals, for the summer kinds will not flower for two, three, or even four years. Seedling Roses should be watered only when the soil is really dry, and then always in the evening, about sun-set. The same frame-work used to protect the plants from frost in spring will answer for summer shading; but shade only when the sun is powerful, and then only for a few hours in the middle of the day; for shading as well as watering may be carried too far, and if so, favours the development of mildew. Watch your seedlings closely, to see what amount of sun they will bear without injury, and determine your movements accordingly.

At the time of weeding it is well to have a sharp-pointed stick in the hand, with which to stir the soil round the seedlings. This must be done with great care, or the plants just protruding will be injured ; indeed, if they are germinating thickly, it is a dangerous operation, and perhaps better left alone.

So soon as the seedlings have formed their second leaves, if they should have sprung up so thick as to impede each other's growih, a part may be safely drawn out after a good shower of rain (raising the soil in the first instance with a handfork), and transplanted to a shady border in the evening of the day, watering and covering with a hand-glass until they take hold of the soil. Let it be understood, however, that transplanting at this season is not recommended: it is here chosen because less injurious than suffering the plants to remain crowded together. It may not involve any positive loss, but it ordinarily retards the period of flowering.

When the plants have formed a few leaves the pleasure attendant on the raising of scedlings increases ten-fold. In looking over the bed, how anxious are we to discover to what groups certain curious-looking individuals belong. We look, and look again, and often depart without coming to any satisfactory conclusion. The plants, however, increase in size, the scrutiny goes on, fresh features are noticed at each new gaze, until at length we have something tangible to work on. We pronounce this to be a Provence, and that a Bourbon: here is evidently a Hybrid, and there a Chinese or Tea-scented. Or if we feel inclined for a closer analysis by descending from groups to individuals, we may in some instances trace the seedling from a particular variety. Here is one evidently born of Hybrid Celine, there another from Gloire de Rosomène. Thus far we may amuse ourselves, and settle the matter in our own minds, although the flowering of these individuals may not always substantiate our pre-conceived notions.

I have seen seedlings of the Bourbon and Chinese Roses flower when little more than a month old. This, however, should be prevented rather than encouraged. It weakens the plants, and does not impart any real knowledge to their proprietor. The flowers may be white, they may be red, and this is the absolute amount of knowledge to be gleaned from them. As to size, form, fulness, and the other valued properties of Roses, no true idea can be formed. It is well, then,
to pinch off the flower-buds immediately that they are seen, whereby the plants gain strength and produce better flowers later in the season: but it is advisable not to destroy any of the seedlings the first year. Let the whole remain till late in October, then take them up, pruning both roots and tops, and replant them in a soil moderately rich. It is of importance that they be transplanted from the secdbed in autumn; for if the operation be deferred beyond winter, there is danger of destroying the seeds which have hitherto lain dormant, and which often vegetate very early in the second spring.

When transplanting, sort out the strongest plants, and place them about a foot apart: the weaker ones may then be set together at less distances. After planting, it will be well to water and shade for a few days, should there be much sun, and even to cover against frost, if such occur before the plants are firmly settled in the ground. This may be done by sticking single boughs, or fern-branches, among them; or, better still, by the use of mats.

In the following summer and autumn the flowers of many will appear. All that are single, or not clear in colour, may be destroyed; also any where the outline is irregular. But if the outline be good, the colour clear, and the flower possessed only of an ordinary degree of fulness, it should be preserved, even though apparently inferior to varieties already known; for the seedling has not yet passed through the high routine of culture the named varieties have, and its properties are not fully developed. It is often capable of great improvement.

As the seedlings blow, whenever one strikes the fancy it should be tied up to a stick, a number attached to it, and its properties entered against the number in a note-book; then watch for the buds being in a good state, and bud one or two stocks to prove the variety. As it would occupy much time to bud all the seedlings, the seedling plant of any that is of doubtful merit may be grown for two or three years, when its real worth will become apparent. But it should be told, that budding on the Dog-rose, or any free stock, enables us to form a correct opinion of a variety a year or two sooner than we can do by trusting to the seedling plant. Therefore, if stocks are not scarce, and the cultivator has leisure, it may be interesting to bud a plant or two of any variety, the flowers or foliage of which may appear to him likely to make it interesting.

Mildew is the most discouraging visitant among seedling Roses. It is bad enough anywhere, but it seems to attack them here with redoubled virulence, and it is astonishing how suddenly it appears, spreading death and desolation in its track. It must be watched for, and, when first discovered, dust the plants with sulphur, on a calm evening if possible, having first sprinkled or syringed them, that the sulphur may stick on. This sometimes requires repeating at short intervals, for it is not a preventive, but a temporary cure.

As winter approaches, it is necessary to provide some protection against frost. The plants of the tender kinds, being young, are extremely delicate, and likely to suffer much from intense cold. If such have been sown in the bor-
(Div. I.)
ders, an advantageous point is gained by sorting them out at the time of transplanting, and placing them in a sheltered spot, where they may be shielded from the cutting winds, and then hoop them over, covering, in severe weather, with a mat, or some frost-excluding material. I have advocated sowing in spring, because the seed lies in the ground a far shorter time; but I know some prefer autumn for the operation, because calculated to induce an earlier growth, whereby are obtained plants stronger and better fitted to endure the cold of their first winter.

If the latter period of the year be chosen, it will be necessary to guard the seeds effectually against mice, as the length of time they lie in the ground increases their chance of being eaten by these intruders. It is a good plan to cover the bed with fine wire-work, or, if we choose to act on the offensive rather than the defensive, the mice may be trapped and destroyed. It will be well to have an eye to this point, whether sowing in spring or autumn.

It is no uncommon occurrence, with seedlings growing out of doors during winter, for the roots to be thrown to the surface, the plants sometimes lying almost out of the ground. If left in this condition, they wither and die. They should be replanted; and if the beds are hoed on a fine day in winter it will prove advantageous, casting a little fine mould upon the surface in the succeeding spring.

With regard to the pruning of seedlings, we have only one point to consider in the first instance-to obtain fine flowers. We sacrifice the shape of the tree to this point, if necessary, cutting back to any cyes that are plump and prominent, and situated on wood likely to produce fine flowers. We remove the gross shoots, if there be any, and thin out well, especially if the variety be an Autumnal, and, therefore, a certain bloomer.

## CIIAPTER VIII.

## ON THE CULTIVATION OF ROSES IN POTS.

It is no longer said that the Rose is intractable as a Pot-plant; indeed, it is now sufficiently established that it is perfectly suited for such, and is consequently gaining a still wider circle of patrons and admirers. This furnishes no matter for wonderment, if we consider, that, in its present improved state, it possesses, in a greater or less degree, every quality that could be wished for in a plant designed for particular cultivation. The length of time the varieties continue in bloom; the delicious fragrance of the flowers; their richness and beanty ; their elegant mode of growth and handsome foliage;-such a combination of desirable properties must necessarily secure for it a large share of favour.

The question has been, and still is occasionally put to us, What advantage is gained by growing Roses in pots? The same question might be asked with equal propriety respecting any class of hardy or half-hardy plants. But we reply to it, by appealing to the unprejudiced judgment of horticulturists, by asking them whether the withdrawal of Pot-Roses from our greenhouses, parterres, forcinghouses, and horticultural fêtes, would not cause a very obvious blank. We think it would; and if so, it cannot be altogether folly to grow them in this manner. But there are more cogent reasons for the practice. Some of the delicate and more beautiful kinds have their flowers bruised and spoiled, cven in summer, by the winds and rains of our unsettled climate, and many are incapable of enduring the cold of winter. Then, again, in some soils, as in low wet places, and in some localities, as in the neighbourhood of large towns, these same sorts will scarcely grow when planted out in the open air, but flourish and flower well when grown in pots under glass. It is such kinds we recommend principally for Pot-culture, introducing otheis merely to increase the variety. And surcly the objects are worthy of this especial care. What other plants will conduce more to the enlivenment of the greenhouse? What others fill it with such a grateful perfume? I regard the Autumnals especially as of rare worth for greenhouse culture; for, by keeping three distinct sets of plants, we may ensure Roses all the year round. Six months may be allowed as their natural period of blooming out of doors, from June to October inclusive; then the shelter of a frame or greenhouse
will prolong the blooming season till February; and during this and the three following months forced Roses may be obtained in beauty and abundance.

These are the principal advantages gained by growing Roses in pots. But we would not press our favourite immodestly on the attention of our readers. Suffice it to record our opinion: if the Rose is a suitable plant for Pot-culture, it will undoubtedly continue to gain friends; if not, no praise of ours can essentially serve it.

In entering on this branch of culture, the first point that should engage our attention is to provide a good heap of soil for the plants to grow in. The groups and varieties differing greatly in their nature and habits, it will appear reasonable that more than one sort will be required, if all kinds are to receive that most suitable. All like a rich soil, which should be made light for the delicaterooting varieties, and more tenacious for the robust hardy kinds.

To form a light soil, procure one barrow of seasoned turfy loam, half a barrow of well decomposed stable manure, half a barrow of leaf mould, and silver sand in proportion to the texture of the loam, which will in no case require more than one-fourth of its own bulk.

The heavy soil may be composed of one barrow of stiff turfy loam, one barrow of night-soil that has been mixed with loam, as previously advised (see p. 29, Div. I.), and laid by for a year, half a barrow of leaf-mould or well-pulverized manure, and sand as before recommended.

Night-soil may be thought too powerful a manure, but it may be used with safety, provided it has been mixed with loam, and well-seasoned previously by frequent turnings. The addition of about one-sixth of a barrow of burnt earth will be found to improve both composts. The materials should be thrown together at least three months before required for use, and turned frequently, that the integrant parts may become well incorporated, and ripened by exposure to the sun and air. The sieve is in neither case necessary, for as large pots will be principally used, the coarser, in moderation, the soil is, the better will the plants thrive.

It is our intention, at the end of this Work, to give a list of the kinds thought most suitable for Pot-culture; but as many may prefer searching our descriptive lists for themselves, let us here consider what features are most worthy of notice when selecting for this purpose. In the Pamphlet on the Cultivation of Roses in Pots,* published three years since, the following points were given, and I do not know that I can offer any further suggestions:-

1. Elegance of habit ; regarding both growth and manner of flowering.
2. Contrast of colour.
3. Abundance of bloom.

[^10]4. Form or individual outline of the flowers.
5. Duration and constant succession of bloom.
6. Sweetness.

What, says the tyro, can we find so many good properties combined in one variety? Can we obtain a Rose of an elegant habit, an abundant bloomer, the outline of whose flowers is at the same time perfect, remaining a long time in full beauty, and that is very sweet? Truly, such cases are rare. Few have a claim on all these points, but some combine them more intimately than others; and it is these we should choose.

Roses intended for growing in pots may be either on their own roots or on short stems: the Tea-scented and Chinese kinds are undoubtedly better in the former way. Let us suppose any number of young plants are obtained on their own roots in 60 -sized pots in the spring of the year. In the first place, they should be shifted into 48 or 32 -sized pots, according to the rate of growth of the plant, and the quantity of roots it has made; then plunge them, seeing that they are watered as often as the soil becomes dry. I believe that Roses cultivated to bloom at their natural period cannot be placed in too airy a situation; therefore I would keep them constantly plunged in an open spot in the garden, removing the tender kinds only, on the approach of winter, for shelter against frost.

Some object to plunging, and prefer placing the pots on the level ground, packing moss, cinder ashes, or sawdust between them. Practically speaking, it seems to matter but little; and, whichever plan is adopted, there are two things to guard against-the ingress of worms from the ground, and the egress of the roots from the hole in the bottom of the pot. If the roots find their way into the ground there will be few formed in the pot; and the result will be, a more vigorous, but less perfect, growth : and if the plants are required to be removed at the time of flowering, they will receive a severe check. Both of these occurrences must therefore be prevented, by placing the pots on inverted seed-pans.

It must not be expected that the plants will all maintain the same rate of growth : some will grow vigorously, others not so. Now, although we would not wish to deprive the cultivator altogether of the reward of his care and labour-the flowers, yet we would say, a few only should be suffered to develope themselves the first year, and the seed-vessels should be cut off when the flowers drop. The aim throughout the growing season should be to get a few stout, well-ripened shoots by autumn-shoots that will bear strong pressure between the finger and thumb without giving any indication of softness, for it is these which will produce strong and perfect blooms.

The way to accomplish this is to place the plants a good distance from each other, and, as the young shoots form, they should be set wide apart, that they may enjoy the full sunlight. From the earliest period of growth, it is necessary to look them over occasionally, with the design of encouraging such shoots as maintain the best position, and checking those whose tendency is to exclude others from a
(Div. I.)
fair rate of growth, and destroy the symmetry of the plants. Weak shoots should be cut out, and disbudding practised freely. If two or three eyes burst from the same point, threatening to crowd or cross each other, a portion should be at once removed.

Most of the plants shifted into 48 or 32 -sized pots in spring will, if they flourish well, require a second shift in July, when 24 and 16 -sized pots may be made use of, and the same soil as before. When re-potting, the crock may be removed from the bottom of the ball, and the surface soil, which is apt to become sour, rubbed carefully away, so far as can be done without disturbing the roots. A nice judgment is required in shifting the Chinese and Tea-scented Roses, as they are very liable to suffer from over-potting. As a guide on this point, turn them carefully out of the pots once or twice a-year to examine the roots: if found protruding from the ball of earth in great abundance, place the plants in larger pots; if it be otherwise, put them back in the same. The hardy and robust growers may, however, be cultivated on the one-shift system, that is, changed at once from small to large pots; but this treatment will not suit the small and delicate growers.

Annexed (No. 27) is shewn a plant two years old, having been grown the first year in a smaller pot. It is now autumn, and it is losing its leaves. It needs no thinning, as it has been disbudded during spring and summer, on the principles

advanced in our Chapter on Pruning. We now shorten the branches at the points where the lines intersect; and, by contimuing to practice disbudding, we obtain a handsome and well-flowered plant the following summer.

After it is pruned, the shoots should be staked out at as great distances as possible: those that are left long ought to be made to lie almost horizontal, by bending them down, that the buds may be induced to break regularly from their summit to the base. Great care is required in this operation, as the wood of some kinds is extremely brittle. If, however, the long shoots be allowed to maintain an upright position, the probability is, that two or three buds only at their top will break, which, by their exuberant growth, keep the lower eyes dormant, which are required to form a compact and well-regulated plant. But it is not necessary to keep them long bent ; for so soon as the eyes have burst, the shoots may be tied up again. With regard to training, each cultivator will likely acquire a plan of his own. But of this hereafter.

Watering should be carefully attended to throughout the growing season. The quantity to be given must depend mainly on the state of the plants, the weather, and the porosity of the soil. As a general rule, Roses require but little water during autumn and winter. In spring, when the buds first break, occasional syringings are of infinite service. As the plants advance in growth, thereby acquiring a greater surface of foliage, and as the sun gains greater power, the quantity may be increased ; and when in full leaf, and throughout the growing season, an abundance should be given. In making these remarks, we are supposing the water to have free egress through the rubble at the bottom of the pots, a condition essential for the health and perfect growth of the plants.

Manure water is found beneficial. The use of it imparts a freshness and dark green hue to the foliage, and increases the vigour of the plants. It should not, however, be given too frequently, nor in too concentrated a form. If guano is used, an ounce to a gallon of water is sufficient. It is well to watch the effects of the dose given, to guard against an overgrowth, and regulate the supply accordingly. Perhaps the plants cannot grow too vigorously, provided the wood can be well ripened before winter. There is the point. But, as we cannot ensure a sunny autumn, which is necessary for the perfecting of strong shoots, a moderate growth is safer. Camphor-water an eminent Rose Amateur has advised me, from his own experience, to try; but I am as yet unable to publish any satisfactory results. It is said to add new brilliancy to the flowers. Certainly, it is a safe application, and no injurious influences are likely to arise from its use.

In addition to our pains-taking to promote the growth of our plants, we have to guard against enemies and diseases. The Rose grub, which is most prevalent early in the season, requires close watching, and should be destroyed by handpicking. I have picked a score off a single Pot-plant. Wherever a curled leaf, or shoot without a growing point, meets the eye, this destructive insect will be found. The mischief has perhaps been done in part, for it is seldom that he can
be discovered, except by the effects he produces; but let us catch him as soon as we can, and much mischief is prevented. He eats and destroys when young, but when he arrives at maturity he is a perfect gourmand, travelling from shoot to shoot, spreading devastation in his track; and if he reach the moth state we may calculate on a numerous progeny the next year. I had a lot of plants remarkably free from these pests one season, which I could only account for by the fact that they were closely sought and destroyed the year before.

The Aphis, or Green-fly, may be destroyed by removing the plants to a pit or house, and smoking them : it may be kept away by dipping the ends of the shoots in, or syringing with, tobacco water, or by laying the shoot in the palm of the hand, and brushing the fly off.

There is a very small canary-coloured fly, which did great mischief among Roses last season. They are generally found on the back of the leaf, close to the midrib, eating the leaf, working from the under side, and not only disfiguring, but injuring the plants. They are remarkably active. By giving the plant a tap, they will rise instantly in the air, fly round, and settle again on the leaves. As they were too nimble to be dealt with as their more sluggish compeers in mischief, I applied sulphur and snuff in equal portions, dusting the mixture on the back of the leaves when wet, and found it prove an excellent remedy.

A long thin caterpillar, the larva of a saw-fly, committed great havoc among Roses in many places last year. They came in such myriads upon a Rose Garden in this county that the plants were almost stripped of their leaves before their course could be arrested. Hand-picking was resorted to, by which means they were ultimately got rid of.

The red fungus, which often attacks Roses out of doors late in autumn, may visit the Pot-plants ; and should it do so, the leaves where it appears should be carefully rubbed between the finger and thumb, using a little sulphur in the operation.

Mildew is sometimes a source of great annoyance. Watering with a solution of nitre is said to destroy it. If the situation is airy and sunny, there is little to fear on this account. Forced Roses are more subject to it, and, when speaking of these, it will require a brief notice.

We have followed our plants through the first training season. They have been shifted twice, once in spring, and again in July. In autumn they will be well established, when a portion may be selected for forcing, and part left for blooming at other periods.

If to produce large and handsome specimens quichly is the point aimed at, we would advise sacrificing the bloom in part, even the second training season, by pinching out some of the flower-buds so soon as they are formed. The same routine of culture will require to be gone through now as in the first season, availing ourselves of whatever knowledge we may have gained by experience and observation. But a new source of amusement now opens upon us, and one which will discover and exercise our taste. The first year little training is necessary;
but it has now become an important part of the business. If skilfully and tastefully done, it greatly enhances the beauty of our favourites: if otherwise, it has a contrary tendency. Often we see well-grown plants, which reflect great credit on the cultivator, spoiled in the training. To manage this properly, the shoots should be tied out to sticks immediately that the plants are pruned; and when the newly-formed shoots are three or four inches long, they should be tied out also, training according to some preconceived plan.

We agree that the fewer sticks used the better ; but we fear Roses cannot be managed nicely without the help of some. We do not like to see a plant with as many sticks as it has flowers, and almost a hedge-stake used to support a branch which a privet-twig would hold in place. This is bungling and unsightly, equalled only by the want of design often apparent in the training. The sticks should be chosen as slight as will support the flowers, and the shape of the plant should be determined before we commence to fashion it. Not that we are obliged to follow such form, if, by any occurrence, we discover one more suitable in an after stage of growth. The sticks used in tying out and training should be painted green, as near the colour of the foliage as possible, duller, not brighter, or they will create a glare, and detract from the beauty of the plant. To us the system of a tall shoot in the centre of the plant, with all the others disposed around it gradually decreasing in height as they recede from the centre-in a word, a pyramid, presents the most pleasing object. See No. 28; which is a newly-pruned plant grown and trained on this system.

Immediately after pruning, we draw the lower shoots downwards over the rim of the pot, just beneath which a wire should pass, to which the bast may be fastened. When the plants are of three or four years' growth, and have been previously trained upon this plan, tier above tier of branches may be arranged, each decreasing in circumference in the ascent, till we terminate in a point. Trained on this plan, the plants require constant care and attention during the season of growth to keep them well balanced. Strong shoots must be stopped as occasion may require, and weak ones encouraged.

A round bush is quite in character in some instances, especially for such kinds as are of lowly growth.

The plants may be trained to a face, the tallest shoots ranged at the back, the others gradually decreasing in height as they approach the front. This method has been successfully carried out at the various horticultural exhibitions, where only one side of the plant, or at most three-quarters of it, is presented to view.

Pruning may be applied here as elsewhere, excepting that, the growth of PotRoses being usually less vigorous than that of kinds under common treatment, they require rather closer pruning. Disbudding should be practised in Potculture especially: it is of great assistance in obtaining well-formed plants, which we expect to see when grown in pots.

But the second season has passed away, and we have entered upon the third.


Our plants are not equal to what they are capable of becoming; but the accompanying engraving (No. 29) may be considered a fair illustration of a three-years' old plant that has been carefully and skilfully cultivated for tro seasons. Its growth is too vigorous to be called perfect, for the flowers are, in consequence, nearly all on the top of long shoots. This, however, is desirable at this stage of growth, and easily remedied the next year, by long pruning, and afterwards bending the branches down.

Roses are often lifted from the ground to be grown in pots, and it is necessary to say a few words about them. Early in autumn (September) is a good time to take them up; and if done immediately after rain, the roots are less liable to be injured in the removal. When potting, whether the plants are on their own roots or on stems, the straggling roots should be cut in so far as to admit of their being placed comfortably in the pots. If any of the roots have been bruised in taking up, the bruised part should be cut away : let the cut be made clean with a knife, and fibrous roots will soon be emitted from its surface. When potting worked plants, we should have an eye to suckers from the wild stock, which should be cut off close to the stem, to prevent their springing into life at any future period. The sized pots most suitable for dwarf plants from the ground vary from Nos. 32 to 12 ; if a plant is of robust growth, strong and well rooted, it may be placed in
the latter size: if the reverse, use the former. In reference to this, the judgment at the time of potting is the best guide. Placing the plants too low in the soil is a great evil: always keep the roots near to the surface, as they are sure to strike downwards.

It is essential here that the pots be thoroughly drained, and the soil should be well pressed or shaken down among the roots. The heads may be thinned out at the time of potting, leaving as many shoots as can be found properly situated to form the plant handsomely. The shortening of the shoots may be deferred till the plants are supposed to have made fresh roots; remembering, however, that the time of pruning regulates the time of blooming. The earlier they are pruned the carlier they will flower.

After potting, the plants should be placed in a cold pit, where they may remain closed fiom the air for a few days. They should be syringed twice daily, or three times, and shaded also, if sunny weather. If taken up in September or October, when the leaf is green, and kept in a close pit, well syringed and shaded, they will retain their leaves almost as fresh as if left in the ground, and soon renew their hold of the soil.

I have removed the Autumnals from the ground in June and July, just when they had completed their first flowering, and, by treating them in the manner above described, have obtained complete success.

It is not necessary that they should remain in a pit for any great length of time. After the first ten days or fortnight air may be admitted gradually to harden them, when the hardy kinds may be plunged out of doors, in an airy situation, and the tender ones kept in the pit, or placed by themselves where they may be sheltered from severe frosts. The north side of a wall or fence will serve for this purpose, erecting a temporary building, open on three sides, the top covered with felt or fern, or any thing else that will exclude the rain and frost: the sides may then be closed in with mats in severe weather.

A few remarks on Roses grown in pots as climbers may not be altogether useless. If it be the wish of the cultivator to train a few upon this system, they should be invariably chosen on their own roots. But perhaps it may seem strange that we should suggest such a thing. What! cultivate Climbing Roses in pots ! The idea is absurd! So it would be did we recommend the groups which are ordinarily spoken of as climbers; namely, the Ayrshire, Boursault, Banksian, Musk, Sempervirens, \&c. But such is not our intention. Magnificent as these are when growing in the open ground, to the height of fifteen feet, covered with their immense trusses of bloom, we are aware that their semi-double and transient flowers render them unsuitable for Pot-culture. But where else are varieties found that will climb? This question will be replied to in the list given at the end of this Work.

We have now to point out the end in view, and the means by which it is to be accomplished. Some kinds, which are indispensable even in a small collection,
cannot be grown to advantage except as climbers; such are, Noisettes, Lemarque, Solfaterre, Jaune Desprez, and others. As to the shape they are brought to assume, the taste of the cultivator will perhaps be the best guide. Circular trellises may be formed, varying in height and diameter, that they may be fitted to any particular variety, according to its rate of growth. None should exceed three feet in height. Round these the shoots may be trained, according to the accompanying illustration (No.30), so as eventually to hide the trellis, and to produce

No. 30.

a dense, but not shapeless, mass of foliage and flowers. It is necessary, in the first instance, to practise close pruning, to induce them to grow vigorously: the shoots should then be trained in their proper course during the season of growth. Now, the great point to be kept in view here is, so to prune and train that the plant may produce flowers from its summit to the ground; for it is evident that if only a few flowers are to be produced at the top, then the dwarfer it is grown the better. Here, as in all gardening operations, Nature requires time to perfect her work. The plants will not be complete the first year: they may not the second. Much, of course, will depend on the treatment they undergo, their strength when put to the trellis, and the size of the latter. But little pruning is necessary : each year the weak and unripened wood only should be removed, tying the rest to the trellis,
till it is covered. With respect to the shortening of the shoots, they should be cut back to eyes that are well ripened, and no farther. Cover the trellis as thoroughly and quickly as possible, and then prome as directed for Climbing Roses.

We said, at the opening of this Chapter, that Roses may be had in flower all the year round. Let us revert to that point. We must divide our plants into three lots, varying the colours in each as much as possible; securing the fullest kinds for forcing, and the least double for winter flowering. From June to October, inclusive, may be considered the natural season of flowering. By forcing, of which we shall speak in the next Chapter, we may obtain flowers from February to May. It is now our intention to relate how we secure flowers from November to February. This is the most difficult point to attain. Nevertheless, it is done, by inducing the Autumnals to grow and form flower-buds late in the autumn, and by preserving these flower-buds from wet and frost. I do not say this plan is new, or has not been adopted by others; but I certainly am one who read the lesson from the book of Nature, and afterwards practised it with complete success. Walking one October evening among some Chinese and Tea-scented Roses which had been transplanted in spring, and had grown and flowered but little during a dry summer, I could not but remark how thickly the trees were then covered with small flower buds. The first inquiry was, as to the cause of this, which was soon discovered. A dry spring had been succeeded by rain late in summer, and the plants were now growing vigorously. Pleased at first by the prospect of so late a bloom, it did not strike me that it would be the middle of November before the flowers could be perfected. However, frost and rain set in, and the consequences were soon apparent-the flower-buds were blighted and decayed. One kind alone, Chinese Fabvier, a semi-double scarlet one, braved the storm, and his rich warm tints were unusually beautiful, or perhaps apparently so, in contrast with the desolation that reigned around. The petals of the most double kinds had become glued together at their tops, which prevented them from expanding, and the buds rotted. From these observations I inferred two things; 1st, That had these flower-buds been protected from frost and rain, they would have been gradually unfolded; for they continued advancing in size so long as the weather remained favourable. 2dly, That the least double varieties are more likely to expand their fowers perfectly late in the year than others, because less affected by damp ; and, that the damp was as destructive as the cold, was evident, from the most double varieties, which retain moisture the longest, being in the worst state, and from the semi-double ones flowering, in spite of the adverse weather.

Building upon these inferences, late in the following summer (I think in August) I cut down the main shoots of several Autumnals that were then flowering in pots, leaving two or three eyes on each shoot to break from. They broke; and in October, the flower-buds being formed, the plants were removed to a cold pit, giving all possible air in fine weather. It was a mild winter, but a damp
(Div. I.)
one. The flower-buds advanced steadily, although some became mouldy and damp, and, as it is termed, "fogged off." Nevertheless, during November and December, many kinds flowered beautifully; and at Christmas I cut as fine a bunch of roses as could be desired. In wet or damp weather the lights were kept on: in frosty weather there was the further addition of a straw-mat. Lovers of roses! what think you of this? Is a cold pit unworthily occupied with Potroses, which shall furnish you with flowers in full beauty in the depth of winter? It has been seen that the above succeeded well there; though it is questionable whether they would do so every season. Severe frost, should it occur, must injure, if not destroy, the flowers. Let them, then, have a place in a greenhouse, giving fire-heat only to dry up dampness and exclude the frost. So soon as they have done flowering they may be removed to a cold pit, giving air plentifully. In March they may be re-potted and pruned, and plunged out of doors, where they will flower again in July.

Once every year, late in September, or early in October, all, except the plants intended for winter flowering, should be turned out of their pots, shaking away a good portion of the soil, and re-potting them in new or clean pots, larger if thought necessary. Immediately after this operation they should be transferred to some situation where they have the morning sun only-a north border is a good place-and watering must be carefully attended to. When they have remained here for a week or ten days, the pots may be plunged in the ground up to the rims, having manure laid on the surface of the soil. At the time of repotting, it is advisable, if disbudding has not been followed, to thin out such shoots as will not be required for the succeeding year.

Whenever plants are grown in cold pits, abundance of air should be given at all seasons. Indeed, the lights need only be used as a shelter against frost or wind, or heavy rain; dews and slight rains are beneficial in spring and summer. In the flowering season it will be necessary to shade during the middle of the day, when canvas lights should be used instead of glass ones.

## CHAPTER IX.

## ON FORCING.

Of all flowers induced to blossom, amid the chills of winter, there is perhaps none which excites so much interest as the Rose. And as this branch of culture is now so generally practised, it seems to demand more than a passing notice.

The art of forcing consists in accelerating the period of growth and flowering of plants, by means of artificial heat. In practising it, we change their seasons, inducing them to perform certain functions at other seasons than those at which they naturally perform them. With Roses, spring and summer is the natural period of growth, autumn the period of maturation, and winter that of repose. But supposing we commence forcing at Christmas, our winter becomes their spring, our spring their summer, our summer their autumn, and our autumn their season of rest. Thus, in forcing, although we change all the seasons, we take care not to annul any one of them, or we sacrifice the health of the plants; and these changes should be brought about gradually. The first year the plants are forced they should be advanced steadily, and should, in no case, be brought to flower earlier than the middle of March.

In the construction of the forcing-house, every chance of increasing the quan. tity of light should be accepted, remembering that, in their artificial spring, the plants will not have the advantage of so long or so powerful a sunlight as in the natural one.

A house has been built here recently, for the express purpose of growing Roses in pots to bloom in the spring of the year. Measured from the inside, it is thirty feet long, and seventeen feet wide. It has a span-roof, with a longer slope to the south, glass ends, and upright sashes at both fronts. There is a stage in the centre, surrounded by a walk; and a tank; three feet wide, runs round the inside walls. Over this tank the pots are plunged in sawdust, and a gentle bottom heat is maintained. The top lights are movable, that air may be given as required; and it is intended to substitute canvas for glass in the summer season. The house is heated by a Stephenson's cast-iron boiler. A pipe runs round the inside, furnishing it with atmospheric heat, emptying itself into the tank above mentioned, which re-conducts the water to the boiler. This house was built for Pot-roses only; but if flowers are not wanted before March or April, we think
a desirable point would be gained by omitting the centre stage, and forming, in its place, a bed of good soil, in which standards and half-standards might be planted; say three or five rows - a row of tall plants along the centre, and shorter ones on either side.

I am induced to recommend this mode of culture, from having observed with what luxuriance the Tea-scented and other Roses grow, when planted out in the borders of conservatories. The flowers they produce under such circumstances are often of extraordinary dimensions, and the season of flowering ceases but for a short time. Treated thus, many linds prove almost evergreen. I have a plant of Tea Goubault now before me, which bloomed last March, and which has as yet (January) made no preparation for casting the leaf. It has, of course, been kept constantly under glass. If, however, flowers are wanted so early as February, this system would probably not answer well. Pot-culture must then be adopted. The high atmospheric temperature required to ensure their production thus early, with no power of obtaining a corresponding increase of bottom-heat, would cause a weak growth, and the flowers would be of little beauty.

In forcing Roses on a small scale, a pit with a span-roof may be constructed at a very trifling cost; and an Arnott's stove, proportioned to the size of the pit, proves an effectual and wholesome heating apparatus. A pit 20 feet long, and 15 feet wide, of sufficient height to enable one to walk conveniently down the middle, will hold 100 large plants; and to heat this structure a moderate-sized Arnott's stove is sufficient. A pan of water should be placed on the top, to preserve a proper degree of moisture in the atmosphere. Plants removed from the ground will, if on their own roots, require to be grown one year in pots before forcing. Their carly treatment is the same as that of other Roses in pots, which is fully described in the last chapter. To this, then, we need not revert, but will suppose the amatcur in possession of strong plants of at least two years' growth, whether of his own raising, or purchased at the Nurseries. When about to force Roses on their own roots, we should ascertain whether the pots are full of sound healthy roots; for if they are not, only partial success can be obtained. If fine flowers are wanted, the last week in December, or the first week in January, is early enough to commence forcing, and but little fire-heat should be given in the first instance. This is their artificial spring, and a low right temperature must necessarily be secured. The Rose is not a lover of a powerful heat : it must be forced steadily, increasing the temperature by degrees, if flowers are required very early. Where bottom-heat can be readily obtained, we think it advantageous, although by no means necessary. A good point to start from in forcing is 50 to 55 degrees by day, and 40 degrees by night. The temperature of the house requires close attention; and the state of the atmosphere, as regards its humidity, although often overlooked, is equally important. Too dry an atmosphere causes a drain upon the nutritive organs, and will cause the young leaves to wither and fall off;
it also encourages red spider. A too damp atmosphere is favourable to the production of mildew, especially if the temperature should fall suddenly, from the effect of atmospheric changes from without, or other causes. A dry air may be remedied by syringing the plants copiously, and, if found necessary, by pouring water on the floor of the house. A damp atmosphere is best remedied by giving air. Unless the weather be very frosty, air should be admitted freely for the first fortnight, to strengthen the growing buds; but so soon as leaves are formed, it will be necessary to keep the house constantly closed, except the air be very mild, which it seldom is at this season of the year. By the admission of cold air, the young leaves may, from their extreme tenderness, be blighted in an hour. The plants being once fairly aroused, and their roots in action, the temperature may be gradually raised till we reach 50 degrees by night, and 75 degrees by day. A higher temperature than this should not, I think, be produced artificially. Towards the spring, sudden bursts of sunshine will occasionally raise the house 10 degrees, without producing any injurious effects : still, if the weather be mild, we would counteract this by giving air ; if keen and windy, by shading. A temperature of 90 degrees, or even 100 degrees, caused by sunshine, is, however, productive of less injury than a keen frosty air.

In case of severe weather, as was experienced in February 1845, on the 12th of which month the thermometer sunk as low as 6 degrees, there will probably be some difficulty experienced in maintaining the temperature previously recommended. Under such circumstances the plants will receive no injury from a slight decrease of heat, which is indeed much to be preferred to a high forced temperature, produced by great effort. If the house or pit is so constructed that it can be conveniently covered up with mats or cloths, radiation is prevented, and the advantages are very great: and this is desirable on the score of economy, for a great expenditure of fuel is saved; but it is still more desirable for the health of the plants, because the less artificial heat employed the better.

In the early stage of growth, little water need be given: the plants may be syringed occasionally with manure-water of moderate strength. I have sometimes used soot-water in lieu of the above, and the vigour of growth, the darkgreen hue of the foliage, and the prominence of the buds, sufficiently attest the value of it. It may, however, be dispensed with so soon as the branches begin to harden and the flower-buds are formed. It is advisable to syringe the plants twice daily in the early stage of growth ; in the morning, just as the sun falls upon them, and again in the afternoon. But should several cloudy or rainy days follow consecutively, once syringing, and that in the morning, is sufficient. Disbudding should be practised here, as before recommended. We would not, in forced Roses, destroy dormant buds, for they are of no injury to the growing shoots, and in them we have embryo shoots, ready to be awakened, and capable of producing flowers at our will.

The Rose, when forced, has as much to contend with from the insect tribe as (Div. I.)
when growing naturally in the garden. Here, as elsewhere, the Rose-grub will require close seeking, for the treatment which causes the production of Roses before their natural time produces him also.

The red spider is sometimes productive of sad results, for which moisture is the best remedy. Syringe the plants abundantly and daily with tepid soot water, perfectly clear, driving the water with some force against the young leaves through a.fine rose-syringe, so as not to bruise or injure them. The pipes may also be washed with sulphur and soot formed into a liquid, laying it on when they are in a warm, not hot state.

For the destruction of the aphis the usual plan of fumigating with tobacco must be had recourse to, and this upon their first appearance. The atmosphere of the forcing-house seems particularly congenial to them. To-day you will see a few fat comfortable-looking ones stalking up and down the shoots: disregard them for a week, and you will see thousands. To avoid the unpleasant situation of being enveloped in a dense cloud of tobacco-smoke, the following plan is now adopted in many places: a portion of tobacco, judged sufficient for the size of the house, is mixed with an equal portion of damp moss, and placed in a fine wire sieve over charcoal embers. This gradually smoulders away, and the house is filled to perfection. In a large house a sieve at either end is advisable. Fumigation will require to be repeated frequently ; for if only one or two aphides escape, the house is soon swarming again, and no plant can thrive while covered with these numerous sap-suckers.

The mildew will sometimes appear, and is a pest of no ordinary kind. I have seen the beauty of a house destroyed by it for the season. Sulphur, dusted on the leaves when wet, is the remedy usually applied. Experience and observation tell us that the best preventive, as well as cure, is to keep the atmosphere in a wholesome state. Sudden and violent changes should be avoided. Every effort should be used to keep the plants vigorous and healthy. If they suffer from being crowded, or for want of light and a free circulation of air, they become drawn and weakly, and are very liable to its attacks. On the first appearance of mildew, such as are suffering from it should be removed, to prevent infection.

During their growth, the plants should be looked through frequently, and the surface of the soil stirred, using due care not to injure the fibrous roots, which often lie near the top in great abundance. At the same time sackers should be removed; those from the stem cut off close, and the under-ground ones drawn out.

So soon as the leaves are of fair size, and the flower-buds are forming, a free supply of water is required. Manure water should be given occasionally, not cold, but of the temperature of the house. If worms are troublesome, lime water may be administered.

But the reward of our care is at hand. The buds are strongly formed, and shew colour, and syringing must cease. Now which do we prefer, a great dis-
play at one time, or a regular succession of flowers? If the former, lower the temperature of the house gradually, and run a thin canvas over the glass to create a slight shade. This will give the buds longer time to expand, and the flowers will be increased in size, improved in colour, and last longer. A continual succession of flowers may be obtained by removing the plants, at different stages of forwardness, to a house with a lower temperature, where they get the sun and air. It is plain that the time of flowering will be regulated by the temperature of the house; and plain, also, that the finest flowers will be produced if a moderate degree of heat be maintained. Has our treatment, then, guided, as in some measure it must be, by the state of the weather without doors, caused them to flower by the end of February, or is it March? Whichever it may be, here they are, delighting us with their gay and varied colours, and shedding around a delicious perfume. The Rose in bloom in winter, too! Truly, this is a charmed flower.

Here is a pause in the process of cultivation; the Amateur has breathing time. He has only to see that his favourites do not suffer from drought, and all will go on well. But an active mind, which the cultivation of flowers usually engenders, will find plenty of amusement in attending to his plants out of doors. Besides, is it likely that a house of forced Roses should be known to exist without drawing the proprietor's friends, or some anxious connoisseurs, around him? And here is one charm hanging over the pursuit: not only does the votary of floriculture derive, from the purest sources, a calm and intellectual enjoyment, but he is at the same time enabled to exhibit the science, in its most pleasing dress, to those around him.

When the flowering is over it is advisable to remove the summer bloomers. Do not take them at once from the forcing-house and place them out of doors, for the sudden change would prove injurious. Gradually harden them, by help of a cold house, if standards, or a pit, if dwarfs. When the summer kinds are removed, fresh plants, kept in reserve for the purpose, may, if the Amateur wish, be brought to fill their places. The autumnal bloomers may, however, be treated somewhat differently: their shoots should be cut back to three or four eyes with good leaves, and they will give forth a second crop of flowers in grand perfection during April and May. At the time they are cut back, it is well to remove a little of the surface soil, replacing it with well-pulverized manure.

After April, very little fire heat is required for the forcing-house: indeed, if the weather be warm and sunny, none is needed. After the second flowering, the admission of air should be gradually increased for a few days, when the plants may be re-potted and removed from the house. In the operation of potting it will be found necessary to shake away a portion of the soil, sometimes using larger pots, and sometimes others of the same size: the old pots should not be used again till they have been washed or well rubbed out. After potting, plunge the plants in an airy and sunny situation, where they may remain till required for forcing the following year. Having been early excited, they will be disposed to rest early;
and thus are obtained specimens in the best condition for forcing. I have observed plants, which have been forced for several years in succession, cease growing about Midsummer, and shed a portion of their leaves shortly afterwards. If, from much rain, the bark and soil become thoroughly moistened, they are aroused, a second growth occurs, and the best wood is lost. To prevent this, the plants should be pruned so soon as the wood is matured, and the pots laid on their sides under a north wall or fence. The Autumnals removed from the forcing-house in May will, if suffered, produce flowers again in September and October. But this is working them rather hard; and if we are anxious to secure good plants for the next forcing season, the flower-buds should be nipped out so soon as formed, and all gross shoots stopped back or destroyed. It is the shoots formed after the first flowering that we are looking forward to for fine flowers the next year, and the eyes on them must be kept dormant. Roses thus treated will flower well forced several years in succession.

It is not intended to be expressed that Roses newly-removed from the ground will not bear forcing. If worked on the Dog-rose, or any free stock, they do not absolutely require to go through the preparatory course recommended for plants on their own roots. If taken up early in September, they may be forced the first year with success, as far as regards the flowers, although they do not form regular and handsome plants. For several years past it has been customary here to place the new varieties in the forcing-house, to test their merit before offering them to the public, and some tolerable flowers are thas produced; certainly not in full and perfect beauty, though sufficiently good to form an opinion of their value. But this is treading on the very confines of the laws of nature, and is one of those things which may be done, and not what should be recommended. Small plants, established, are preferable to large ones newly-potted. In fact, the former, if in a good state, will produce flowers equal to those of larger plants: the difference will chiefly consist, not in quality, but in quantity. Plants of this description, after having been in the house for a short time, should be shifted into 32 or 24 -sized pots, using a rich light soil, and taking care not to bruise the tender roots, or loosen the ball of earth in the operation. With regard to the description of Roses best suited for forcing, some varieties, which do not expand their flowers freely out of doors, are beautiful when forced ; such are, Melanie Cornu, Prince Albert, and others. Some kinds, of rare beauty in the garden, are of little worth for forcing; such are, Comte d'Eu, Labédoyère, and most of this strain. A list of the best will be furnished hereafter.

Many who might not have convenience or inclination for forcing Roses, would yet willingly appropriate a pit to secure a good bloom in April and May; and this may be attained without much trouble. Let the plants be pruned and placed in the pit early in November. Keep them as close to the glass as possible. Give air abundantly in mild weather, covering the glass with mats or fern of cold nights, or even during the day in the event of severe frost.

## CHAPTER X.

## REMARKS ON SUNDRY OPERATIONS IN THE ROSE GARDEN.

Certain branches of cultivation have been made the subject of separate chapters; but there are others, important in themselves, yet not of sufficient magnitude to require this : such it is our intention to include in the present chapter.

Let us run hastily through the year, commencing with the spring. The last operation performed in the Rose Garden has been pruning, and now, forking the beds over requires to be done.

When Roses are newly planted, they need a little extra attention. They should be mulched and watered occasionally, if the spring or summer prove dry. As care in childhood and early life determines the constitution of the man, so attention at this epoch of a plant's existence establishes a vigorous and healthy subject. Unless it is the intention to supply the plants with manure-water during that part of the growing season which precedes their flowering, now is the time to enrich the soil. If the ground has been prepared the previous autumn, this will be unnecessary, but under all other circumstances it should be done. The manure should be well decayed, and a thick coating laid on the beds previous to forking, that it may be turned in in this operation. An annual forking is indispensable; and if the beds are also hoed with a Vernon hoe three or four times in the course of the summer, as the nature of the soil or the season may require, the plants will be largely benefitted. The latter practice is especially recommended for stiff and adhesive soils.

Rose-trees require a careful looking over during April and May, to remove the Rose-grub, which, if allowed to pursue its ravages, proves most destructive to the early bloom. Tobacco-smoke, and tobacco-water, seem alike inefficient; soot-water is evidently disagreeable to them, but they survive it; and the only effectual remedy I know of, is to search diligently, in the carly stages of the young shoots' growth, and draw the vagrants from their flimsy hiding-place. I believe the tom-tit frequently makes a meal off them, but his operations are too irregular to be relied on. The green-fly abounds everywhere; syringing with tobacco-water, or dusting with snuff and soot when the leaves are damp, that the mixture may adhere thereto, destroys or disperses it. It is also a good practice
to smoke the trees with tobacco, using the fumigating bellows, first inclosing the head with some material that will prevent the escape of the smoke.

In Standard Roses, suckers from the stock often shoot forth, and will impoverish the tree if allowed to remain. They should be watched for, and invariably removed so soon as seen : if proceeding from beneath the ground, it is necessary to remove the soil, for which purpose a spade is best, and cut them off close to the stock whence they spring. If this is strictly attended to for two or three years, they will cease to throw suckers. On the specimen plants here, which are of some age, it is rare that a sucker is seen.

At the same time that we are on the look out for suckers, it may be well to have an eye on the heads of the trees, to establish a regular growth. Besides the shoots produced at stated periods, in spring, and in summer immediately after flowering, it is not unusual, when a plant is in full vigour, for buds that have lain dormant even for a year or two, to burst into life, producing very gross shoots. If such proceed from the Summer kinds, they rarely flower, and, not ripening well, are of little use: if they arise from the Autumnals, a large truss of flowers is often produced, but their quality is quite mediocre. In both cases, by drawing to themselves the nutritive juices of the plant, they weaken the more moderate branches, which are calculated to be of service ultimately. But what shall be done with them? They are fine shoots, and it seems a pity to destroy them. But if the plant is already well furnished with shoots, it is certainly best to do so, by cutting them off close to their base, so soon as discovered. If, however, there are but few shoots, or a tree is ill-shapen, they may be turned to advantage. Under the latter state of things, pinch out their tops when they have reached an advantageous height, which the looker-on must determine, and thus they may be brought to fill up a scanty tree, or balance a mis-shapen one. But supposing, when such shoots arise, a Summer Rose has an abundance of vigorous shoots, or an Autumnal is scant of bloom, though at the same time in such a state of health and vigour as to warrant us in concluding there is a sufficient command of food to support and develope existing branches and anticipated flowers; this may render it advisable to allow such shoots their natural course of growth, when the Autumnals-and here we refer to the varieties of Rosa Indica especially-often terminate with a large cluster of flowers. But remember, the most vigorous shoots in Summer Roses are least likely to flower; in Autumnals they do not produce the best flowers.

We would treat these gross shoots in the same way when they arise on Dwarf or Pillar Roses.

So soon as the flower-buds are formed, if we are seeking large flowers in preference to numbers, it will be well to nip out first those that seem imperfect, and afterwards such as are smallest and most backward. With the Damask Perpetuals and Hybrid Perpetuals, which bloom in clusters, it is well to break out the centre bud, as it is often imperfectly formed, and by its removal more room is made for
the development of those which surround it, and they bloom finer. It has even been recommended to cut off the early flowers of the Autumnals, on the ground that there is an abundance of other Roses in June, and the practice causes a finer and more certain production in autumn. Truly we cannot depend on the Autumnals for fine Roses in June; and this is the strongest plea we can urge for the cultivation of Summer Roses. Yet we see no need for destroying the first flowers of the former. Let them bloom; and when the flowers drop, remove the soil an inch or two deep for a good space around each plant, placing a spadeful of manure there. Cover this over again with the soil, and water the plants twice or thrice if the weather continue dry. This treatment will induce a fresh and vigorous growth, ensuring, as a consequence, fine flowers. The secret of securny a good bloom of Roses in autumn exists in keeping the Autumnals growing during summer and autumn. Do this, and there is no fear of failure.

The Autumnals perhaps give a better succession of flowers when grown on their own roots, than when budded, because their growth is less regular: shoots spring into life at shorter intervals.

These are some of the operations necessary to be attended to previous to the flowering season, in order to secure the well-being of our favourites. Some of them may appear tedious, but to those who love flowers there is an interest felt in the simplest operations of culture ; for he who plants a tree adopts it as his own, appoints himself its protector, and delights in administering to its wants. Every act of labour bestowed increases his attachment to it, and every stage of progress offers beauties to his sight. But as he wanders in the Rosarium, and sees the plants covered with flower-buds, what agreeable anticipations does he indulge in, heightened, perhaps, by the occasional recognition of a flower blossoming before its time. Every succeeding walk shews him an increase in the number; till at last he beholds them flushed with blossoms, yielding a rich harvest for the labour he has bestowed. Yes

> Well they reward the toil. The sight is pleased,
> The scent regaled. * * * *
> Each opening blossom freely breathes abroad
> Its gratitude, and thanks him with its sweets.

Annexed are engravings of two Standard Roses in flower. They are both vigorous growers, and have been submitted to Long-pruning (see Chap. V. p. 62). The habit of No. 31 is branching, that of No. 32 is erect: the latter has, by a little variation in pruning, been made to torm a pyramidal head.

What a delightful month is June for the lover of Roses! and what time is equal to the morning for inspecting the flowers? What floricultural enjoyment can surpass that afforded by a walk in the Rosarium at grey dawn, when

The lamps of heaven grow dim, and jocund day
Stands tiptoe on the misty mountain's top?

No. 31.
No. 32.


Then the White Roses inrst show, and how inexpressibly pure they seem in the twilight. The deeper tints,-the blush, the pink, the rose,-follow in rapid succession; and as darkness flies away the crimson and the blacker hues rise in rich effulgence to complete the picture. How beautiful the foliage appears glistening with dew! The flowers, too, are rife with freshness and beauty. Is there not life in every fold? And what a delicious odour is borne on the surrounding air! As we gaze and admire there is little to disturb our meditations; the warblings of the feathered choristers alone break in upon the slumbering scene. Here is the consummation of our hopes in Rose-culture. And what a recompence for the toil we have sustained! Do we not feel as we admire, that
"Nature never did betray
The heart that lov'd her: 'tis her privilege, Through all the years of this our life, to lead From joy to joy."
Next to the morning's walk in the Rosarium a ramble at eventide is, perhaps,
the most delightful. The colours of many kinds have the same fervid glow ; the same perfumes scent the air, but (alas that the life of our favourites should be so fleeting! ) instead of the young and promising beauties of the morning, we gaze on Roses of mature age.

But these are not all the sweets attendant on the cultivation of flowers. As the Amateur scans the beauties which surround him, when satiated-if indeed satiety can be experienced here-with the sight, the reflections awakened by association in floricultural nomenclature afford him new sources of enjoyment. What an amount of virtue, learning, wit, valour, often congregate on a small plot in the flower-garden! How proud is the florist of his Catos, his Socrates', his Butlers, his peaceful Alexanders and Cæsars! There, kings and emperors are placed beside the subverters of dynasties and empires; there, warriors who have indulged in deadly strife exist together in the strictest amity-a Charles beside a Cromwell, a Scipio in company with an Annibal. In "rigid Cincinnatus, nobly poor," he reads a lesson on self-disinterestedness and magnanimity; in Buonaparte, however much he may be dazzled by the splendid genius of the man, he cannot but recoil from one who drenched the earth with blood as he ponders over the futility of human ambition. Then let him contrast the consequences of the tyranny and licentiousness of an Antony with those arising from the virtues and philanthropy of a Howard: the one, through his vices, lost a kingdom ; the other, though an humble individual, conferred lasting benefits on thousands of his race, and earned in the work an honoured and imperishable name. And in admiring the objects bearing names like these, and indulging in the reflections awakened by association, does he not feel the mind expand, refine, aspire to imitate the good and shun the evil?

But we have digressed very far, and must return to the practical part of our subject. With regard to the manner in which Roses should be grown, the habit of the variety may be taken as a guide. The vigorous growers would seem best adapted for Standard or Pillar Roses, unless of slovenly growth, when they are suited only for covering banks or for climbers. The kinds of moderate growth look well on Half-Standards, of which the annexed engraving (No. 33.) is a reprc-

sentation. The kinds of delicate or dwarf growth are best on dwarf stocks or on their own roots; they rarely succeed well as Standards: besides which, a small head on a long stem is unsightly. No. 34. was taken from a dwarf variety of the French Rose.


But let us note a few thoughts respecting Climbing Roses. The groups best suited for this purpose are named at p. 53, Div. I. For covering walls and fences with north, north-east, or north-west aspects, the Ayrshire and Sempervirens are the best, because they are free bloomers and very hardy. There is a wall here with a north-east aspect against which the following varieties were planted about ten years ago :-Boursault: Amadis, Elegans, Gracilis, Inermis. Multiflora: Laura Davoust, Russelliana. Ayrshire: Ruga. Sempervirens: Felicité Perpetué, Leopoldine d'Orleans. Noisette: Cadot, Cerise, Grandiflora. The horder, which extends about three feet from the wall, is paved with oyster-shells and covered with cinder ashes: on it Alpine and other plants are set in the summer months. Beyond the border is a hard gravel-walk; therefore the circumstances as well as situation are decidedly unfavourable. Nevertheless, these Roses have grown surprisingly. In four years they reached the top of the wall ( 8 feet), when three wires were placed one above the other, about a foot apart, being supported by iron uprights fastened to the wall at moderate distances. Although few plants would thrive under the above circumstances, these Roses receive no particular treatment: they are pruned and manured annually, and a few of the main branches are fastened to the wall just after pruning, to keep them from pressing on the plants beneath, or breaking with the weight of the flowers. They are mostly on their own roots, and the stem of the stoutest is thirteen inches in circumference. In the blooming season they are literally covered with flowers.

When Climbing Roses are planted to cover unsightly trees, standing in positions where it is thought desirable they should remain, the same annual pruning and manuring is all the culture they require.

Pillar Roses are comparatively of recent introduction. They present a new feature in the Rose Garden, and deserve to be more extensively cultivated. No. 35.

was sketched from a plant of the Ayrshire Splendens, the best of the group for a Pillar Rose. The groups thought most suitable for this style of growth are named at p.53, Div. I.; but it must not be inferred that all the varieties of those groups are suitable: they require selecting, and those denominated vigorous, or robust, in the descriptive part of this work, are best for the purpose. But what are the proper supports for Pillar Roses? Iron is doubtless the most durable, but also the most expensive : nevertheless, where expense is not a primary consideration, it is thought preferable. The supports more generally used are larch poles, which have a very rustic appearance when cut from the woods with the snags left projecting a few inches : these hold the shoots in place, and prevent them from being torn about by the wind. But the want of durability is a great drawback on the value of these poles. In the course of three or four years, just as the Rose has covered the pole, the latter often decays at the surface of the ground, a strong gale of wind lays it prostrate, and the result is sometimes disastrous to the plant. To counteract this as far as possible, it is well to char about two feet of the lower end of the pole, inserting eighteen inches only in the ground. The advantage of larch poles for Pillar Roses is, the rustic appearance they present, relieving the often-tiring $y 2$
niceties of the Rose Garden: the advantage of iron supports is their durability. Will our readers kindly determine the value of their respective claims?

Two or more plants of different colours are sometimes placed together, and their branches so interwoven that a pied pillar is formed. This, to my taste, is as objectionable as two sorts on one stem, as the effect is not equal to that produced by plants of opposing colours placed side by side. Pillar Roses require more manure than others. In addition to the supply granted in spring when the soil is forked over, it is necessary to give a second supply in June, just after the plants have flowered, as recommended for the Autumnals. Pillar Roses are often found bare of branches and flowers at their base, due, usually, to their having been carried up too quickly, or to poverty of soil. To remedy this defect, reduce their height when pruning, and enrich the soil, when eyes will be developed at the base, and the upward growth may be again encouraged.

The Weeping Rose (No.36) is the last form of which we have to speak. Can


Weeping Rose.
any thing be more beautiful? In windy situations an iron trellis is indispensable: in sheltered places a hoop, as shewn in No. 19, is sufficient. It accelerates the perfecting of the Weeping Rose to thin out the supernumerary shoots in July, after the tree has flowered. We advise cutting off the flower-stalks in all cases
so soon as the flowers have decayed; for in addition to the neat appearance it gives to the Rose Garden, it prevents the formation of seeds, which, when suffered to ripen, draw to themselves that matter which should be stored in the branches.

After worked Roses have been planted some years-say from six to ten-the health of the plants often becomes impaired; the wood annually produced grows weaker and weaker, and does not attain that maturity and size necessary for the production of fine flowers. The stems, unless washed occasionally, become covered with moss and lichens, and, if the soil be at all inferior, they probably cease to swell. Too little proning will produce this state of things; but there are other causes. If we carefully remove a tree in this condition, we shall find it abounds in large sucker-like roots, about the thickness of one's little finger, almost destitute of fibre, and which have been burying themselves deeper and deeper in the earth every succeeding year. Thus they become placed farther and farther from the reach of nourishment, while the tree, increasing in size, requires a greater supply. The consequence is, the tree dwindles and becomes debilitated. This is especially the case when deep planting has been practised. When this state of things is visible, the plants should either be root pruned, or, which is better, taken up altogether and replanted. Let this be done early in the autumn; and when the plants are out of the ground cut off all the suckers, and shorten the roots moderately close, which will induce an abundant emission of fibres. Prune the heads closely in spring: never mind sacrificing the flowers. The removal of trees of this age, and the shortening of the roots, would alone prevent a perfect flowering the first season: look only to the formation of the tree. It is, perhaps, not advisable to remove the whole at once: let a few be thus treated every year; for the second year after replanting, having regained their vigour, they may be expected to flower as beautifully as ever.

The best labels I can find for durability and neatness are wooden ones, threequarters of an inch wide, three inches long, and about the eighth of an inch in thickness. In one end of these a hole may be pierced with an awl, and copper wire passed through, by which they are fastened on the branches. Wooden labels are also preferred for naming plants in the ground. If well painted, and the names written with a dark pencil when the paint is wet, the writing will remain plain for four or five years, and often much longer. When stuck in the ground, the lower end of the stick should be covered with pitch for an inch or so above the line of the level of the ground.

To have Roses in bloom during the chilly months of autumn is the greatest triumph of modern cultivators; and perhaps this property of the Rose has recommended it to popular notice more than any other. Now, although we do not, in a general way, recommend summer-pruning, yet it is desirable to practise it to obtain late Roses. At the end of August 1846 I cut back the main shoots of about thirty sorts of Autumnals, when the flower-buds were about as large as a French bean; and on the 17 th of November I gathered flowers as fine as I had seen them
(Div. I.)
at any time during summer. Some buds, which were gathered at the same time and placed in a vase in a warm room, continued to unfold for several days. It is especially necessary to remove decaying flowers during autumn, as, from the moisture they retain at that time, they cause the rapid decay of those which surround them : a pair of scissors is very useful for this purpose.

It is an excellent plan to wash the stems of Rose-trees in the winter, which is a time of leisure in the garden. A mixture of cow-dung, soot, and lime, two parts of the latter to one of each of the former, serves for this purpose. This will destroy insects which may have sought shelter in the crevices of the bark, and also the moss and lichens which often grow there. It will further soften the bark and favour the swelling of the stem.

It is not an infrequent occurrence that the pith of a shoot decays from an old wound in pruning, leaving the living wood hollow like a flute. It is well to place on the end of such shoots a little of the composition used in grafting (see " Grafting"), which will exclude the wet, and preserve the branch from decay.

As winter approaches, it is necessary to devise some means of protection against frost for those kinds which are susceptible of its influences: such are, the Teascented and some of the Chinese and Noisette. It is surprising what a little shelter suffices: branches of the common fern, which grows plentifully on most wilds, answer for the purpose, as do laurel or fir-boughs: the latter, having a more lively appearance, are preferable. They should be stuck loosely among the plants, if dwarfs, that the air may circulate freely; if standards, a branch or two may be placed in and round the heads, securing them in the most favourable position by a tie with bast. All the Tea Roses form beautiful objects as Standards: the only objection to the culture of many, as such, is their extreme tenderness. I have often thought this difficulty might be overcome by the use of bee-hives. Drive three stakes into the ground triangularly; on these nail a board with a hole cut in one side extending to the centre, that the stem of the tree may be drawn in so that the head rests immediately upon the board; fasten it there, and then place a hive over the head. This will undoubtedly form sufficient protection for the tenderest: it is not very troublesome or expensive ; and if the hives are painted they are not unsightly, and their durability is increased. The framework may remain during winter ; the hives are required in frosty weather only. In March this protection may be withdrawn, at which time the tender Roses may be pruned. Intense cold doubtless kills many tender kinds when left wholly unprotected; and the alternations of frost and thaw are equally destructive, raising the plants out of the ground, and exposing their roots to the drying winds of spring. In the winter of 1846-47 I witnessed many die from the latter cause, which had been uninjured by the severe frost. To prevent these consequences, a little fresh soil should be thrown over the roots immediately after a thaw, and, when the ground is tolerably dry, press it firmly around the stems.

## CHAPTER XI.

## ON PROPAGATION.

The Rose is capable of being progagated, 1. by seed; 2. by cuttings; 3. by budding; 4. by grafting; 5. by layers; and 6. by suckers.

The first method, which is adopted only as a means of obtaining new varieties, has been already fully entered into, and needs no further notice here.
2. By Cuttings.-Cuttings may be made, with varied success, at any time. The seasons which offer the greatest advantages are summer and autumn; but where there is a house of forced Roses cuttings may also be taken from March to May. Let us first offer a few remarks on summer propagation. Immediately after the plants have flowered, select well-ripened shoots, of moderate strength, taking care not to remove any whose loss would destroy the symmetry of the plants. In taking off the cuttings they should be cut close to the old wood, with a heel, as it is technically termed, which increases their chance of rooting. The cutting, of which No. 37. is a No. 37.


A Cutting.
representation, should be made from two to three inches long, consisting of from three to five joints. An inch of the lower end should be inserted in the soil, and the part left above should have two good leaves. From four to six of these cuttings may be placed round the inside of a large 60 pot, in a compost consisting of equal parts of leaf mould, turfy loam chopped fine, and silver sand. After insertion, they should be well watered through a fine rose-pot, to settle the mould closely around them. When the soil is drained and the leaves dry they may be removed to a cold frame, or placed under hand-glasses, keeping them closed from the air and shaded from the sun, sprinkling them twice daily for the first fortnight. The sprinkling usually keeps the soil sufficiently moist, though it is sometimes necessary to give water in addition. We need scarcely say that the leaves should be retained on the cuttings as long as possible; but if they decay they should be removed immediately, or the contagion spreads, and numbers may be sacrificed. Where damping or fogging-off occurs, the admission of air or more sunlight proves the best remedy.

In about a fortnight after the cuttings are made they will have formed callus, when they should be removed to a pit with bottom-heat. Here they root quickly, and may be potted off singly into small or large 60 pots, according to their strength. Place them in bottom heat again for a few days, and they become established, when they may be removed to a cold frame, and air gradually admitted to harden them. "But," says the Amateur, " is bottom heat indispensable? I have no bottom heat; or, at least, I have but little, and to that a variety of plants lays claim. There are my Azaleas, my Geraniums, my Fuchsias, my Cinerarias ; they require all the room of this kind that I have. Surely Roses, hardy plants as they are, will strike without bottom heat." We answer, "They will." We do not say this condition is indispensable, but advantageous. They may be kept in the cold till rooted, or indeed throughout the year; but if raised in bottom heat they will be ready to plant out in August, which will allow them sufficient time to take good hold of the soil before winter. If raised in a cold frame, the rooting process is slow, and they cannot be planted out with advantage before the following spring.

But there is another season at which propagation may be carried on with success, namely, autumn, just before the fall of the leaf. In June the Autumnals only need be cared for; now, both the Summer and Autumn kinds demand attention. Among the latter, the Bourbon, Tea-Noisctte, Chinese, and Tea-scented should be placed in rows under a hand-glass, or round pots in a closed frame, for few of these do well planted as cuttings in the open ground. The hand-glass should be lifted off occasionally on a bright day during winter, to dry the dampness of the soil, when any decayed leaves or cuttings may be removed. Water, under these circumstances, is rarely required till spring, though if worms be troublesome in raising the earth, a little lime-water may be given, supposing the soil to be well drained, which is a point of primary importance. These cuttings will
not be rooted till April, when they may be taken up and potted, and placed in a frame for a few days, kept close, shaded, and syringed. Now for what purpose are the plants required? Are they wanted for pot-culture? or is planting out the end in view? If the former, treat them as recommended in the chapter On the Cultivation of Roses in Pots: if the latter, plant them out in May. But the hardy kinds, such as the Hybrids of the Chinese and Bourbon, the Boursault, the Ayrshire, the Evergreen, the Multifora, and the Hybrid Perpetual, may be planted in beds in the open ground. By October there will be plenty of wellmatured wood on the old plants, and judicious thinning will benefit rather than injure them. The cuttings in this instance should all be made with heels, by which rule only one cutting can be made from a shoot. The tops may be used, but they are not so likely to take root. The cuttings here must be longer than those placed in pots, to allow of their being firmly fixed in the ground. Nine inches to a foot is a fair length, and two or three eyes should remain above ground. When prepared, the best method of planting them is to dig the soil, cutting down a trench every nine inches, in which a row is inserted at about an inch apart from cutting to cutting. A few boughs should afterwards be stuck rather thickly between every two rows, to accomplish the double purpose of shielding them from the sun and to prevent the ground from becoming frozen very hard. Branches of some cvergreen should be used, and as the leaves fall they should be cleared away, or a dampness will be engendered, resulting in loss. The branches may remain till spring, and after their removal it will be well to hoe the soil to loosen the surface. After this, it will be seen which are on a fair way to make plants: the others should be removed, to give the prosperous ones a full chance of success, and plenty of room to grow. Here they must remain till autumn, when they may be conveyed to any position they are destined to fill.

But we have alluded to another season at which propagating by cuttings may take place, and which requires a few passing remarks: this is from March to May, and the cuttings are taken from plants that have been forced. They are treated in the same manner as related of June cuttings, excepting that the latter are first placed in a cold frame, and the former are placed in bottom heat at once. Cuttings so made strike very readily; yet we apprehend this plan is least of all suited for the Amateur. First, it involves the necessity of keeping the cuttings and plants in bottom heat for six weeks or two months in the spring; a time when, to the generality of cultivators, heat can ill be spared. And then it is questionable whether, by such culture, we obtain the robust, hardy-constitutioned plants that we do by raising in the open air, or with merely bottom heat at rooting time.
3. By Budding.-Before we enter upon the detail of this practice, let us note a few thoughts respecting stocks.

The kinds most commonly used are, the Dog-rose, the Boursault, and the Manettii. The former abounds in the hedges throughout Europe, where it delights us with its delicately-tinted blossoms in June and July. It is, however, a bad
subject there, and all who value a good fence will rejoice over its removal. There cannot be a good hedge where the Dog-roses abound. The autumn is the best time to remove them, and a mattock is the fittest instrument for the purpose. Before replanting in the garden the roots should be trimmed close with a bill, bruising them as little as possible in the operation, and the tops shortened of various lengths, according to their size or straightness. The Boursault and Manettii Rose may be either struck from cuttings made in autumn, or purchased at the nurseries. The crimson Boursault is allowable as a stock for Tea-scented and Chinese Roses intended for pot-culture. The Manettii is desirable for hardy kinds when an extremely vigorous growth is desired. The latter has been recommended for kinds of delicate growth, which do not thrive well on the Dog-rose, but $m y$ experience does not uphold the recommendation. If a change of stock is necessary for such, it would seem that one of a finer, not coarser nature than the Dogrose should be employed. That the plants grow more vigorously on the Manettii the first year we do not deny, but their subsequent decline is also more rapid.

As the stocks shoot forth in spring they will sometimes produce buds from the base to the top: all should be removed but two or three nearest the summit. Three placed triangularly are best, when the two lower ones-which should range on opposite sides-may be budded, and the upper one cut away so soon as the stranger-buds are developed.

The operation of budding consists in transferring from one tree a small piece of bark containing an embryo bud, and inserting it beneath the bark of another tree.

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Budding.

This piece of bark is called the bud, $d$ : the tree in which it is inserted is called the stock. The only implement necessary in the operation is the budding-knife, of which there are various forms, but that called Curtis's is perhaps the best. Let us suppose we have a stock which we are wishing to convert into some favourite varicty. In the first place, obtain a shoot from the tree whose identity we wish it to bear ; from this the leaves are cut off, leaving, however, about half an inch of the leaf-stalk to every bud. Before proceeding farther, the prickles should be rubbed off both stock and scion, that they may not interfere with the operation, or annoy the fingers of the operator. Now take the budding-knife in the right hand and make a longitudinal cut, $a b$, about an inch in length, terminated at the top end, $b$, with a cross-cut. In using the knife, take care not to cut too deep : through the bark is all that is necessary ; deeper is, indeed, injurious. Now turn the handle of the knife to the incision, running it up and down the cut $a a$, twisting it slightly on either side to raise the bark. All is now ready for the reception of the strangerbud. Take the shoot which is to furnish it in the left hand, with the thicker part towards the finger-ends. With the knife in the right hand commence cutting about half an inch behind the bud, passing the knife upwards under the bud, and to about the same distance beyond it. The knife should have a keen edge, that the bark may not be ruffled in the operation. In cutting out the bud, the knife should pass through almost level: it may, however, in some cases, dip a trifle when passing directly under the bud, as the wood before and behind it are not always on the same level. If the bud be cut ever so skilfully there will be a little of the wood adhere thereto. This some advise the removal of; others say, let it remain. Much depends on circumstances. If the shoot is not fully ripe, or if, from the nature of the variety, the wood is soft when taken, cut the bud as shallow as possible, and place it, with the wood, in the stock. But the shoot is usually firm and ripe, and then the wood should be withdrawn. To do this easily, place the bud between the forefinger and thumb of the left hand, with the cut uppermost, and with the upper end pointing from the hand. Insert the point of the knife just bencath the wood, $c$-that is, between the wood and the bark-and by a skilful twist of the knife, which can only be acquired by practice, the wood may be jerked out. Now, with the same hand place the bud on the bark of the stock parallel with the longitudinal incision, and with the upper end towards the top of the shoot; then with the handle of the knife raise the bark on the side opposite to that on which the bud is placed, pushing two-thirds of the bud beneath the bark with the thumb. Now raise the bark on the opposite side, and the bud may be gently pushed under with the handle of the knife, or will probably drop in. When properly placed, the eye of the bud should be directly under the opening caused by the raising of the edges of the bark of the longitudinal incision $f$ : if it be not so, the handle of the budding-knife should be inserted beneath the bark, to push it to a right position. But if the bud be not deprived of the leaf-stalk, if that is allowed to protwde from the opening, the eye will be secured in the best site.

After being inserted, the bud should be drawn upwards to the cross-cut, and the upper end cut at the same angle, that its bark may abut against the bark of the stock laid open by the cross-cut $b$. The bud then is inserted, and it now remains to bind it in. For this purpose take worsted or bast ; the former is generally preferred. Commence tying at the bottom of the cut, passing upwards till the whole length of the incision is bound over. Where the buds are feeble, or where success is deemed important, it is customary to tie a little damp moss or a leaf over the bud after the operation is completed, which is in no case objectionable, except on account of the additional time it occupies.

About three weeks after the operation has been performed the worsted may be removed. If the bud is not well united, let it be tied up loosely again: if it is, leave it untied, and there is an end of care till the following spring. In February the wild shoot may be cut away two inches beyond the bud, when the latter will break, and soon form a tree. It is often said that it is unnecessary for the bud to remain so long dormant, and that it may be made to break; and, if an Autumnal Rose, even to flower the same year. We admit the truth of this statement, but condemn the practice. It is accomplished by cutting off the wild shoot a few inches above the bud, or by tying a ligature tightly round it at the same distance. The object sought is, to cut off certain channels through which the sap naturally flows, that it may become concentrated in the vicinity of the bud. The results are, usually, premature development, and an unsound plant. Let a certain number of plants be treated thus, and allow the buds inserted in others to lie dormant till spring : defer judgment for one year, and see, at the expiration of that term, which form the healthier and sounder plants. Unquestionably the latter. If the buds break soon after inserted the shoots are puny and weakly, cvidently suffering from want of nourishment ; if allowed to lie dormant till spring, they have a rich store of food at their command, and grow with surprising vigour. When a bud has shot a few inches, and formed three or four good leaves, the heart of the shoot may be pinched out, when, from the axil of each leaf, an eye will in time push forth. In May the stock may be headed down close to where the bud has been inserted, and if the growth be vigorous the wound made in so doing will quickly cicatrize, and a perfect plant is the result.

If the best time for budding be demanded, we should give July. It does not, however, require great penetration to see that this point depends in some measure on the season. The practised hand will cut and raise the bark to ascertain when it parts freely from the wood; the tyro will find a criterion in the prickles. If slight pressure cause them to separate from the bark, the stocks are in good order, and the fitness of the shoots or scions may be ascertained by the same test. If the weather be hot and sunny, morning and evening are the best periods for budding. A July sun pouring down his rays upon the operator is not altogether pleasant, and, in regard to the operation, does not increase the chances of success. The shoot from which the buds are to be taken should not be cut from the tree till we
are ready for action; and the less time that elapses between the different branches of the work the better : the bud should be cut out, inserted, and tied immediately.
The Wild-roses are sometimes budded in the hedges where they grow, which is called "Hedge-budding." If it be intended to remove them afterwards to the Flower-garden the practice is not worthy of attention: it is far better to transfer them as stocks, and bud those which grow after removal. But if done with the view of ornamenting parks, \&c., by leaving the plants in the hedges, the idea is a good one. Bud them as heretofore described, taking care to eradicate suckers, which usually arise in great abundance, and soon starve the plants if left unchecked.
4. Grafting.-It is sometimes asked whether grafted Roses are equal to budded ones? When the junction becomes perfect they are quite as good, but the scion and stock do not always thoroughly coalesce; owing to which, more imperfect plants are raised by this mode than by any other.

In selecting stocks for grafting, whether they be Manettii, Boursault, or Dogroses, they should be secured of various sizes; the majority, however, about the thickness of an ordinary cedar-pencil. It is well to pot them in 60 -sized pots one year before required for use. The best time for grafting Roses in pots is January, and the stocks should be placed in bottom heat a week or ten days beforehand. All kinds will succeed grafted, but the hard-wooded ones do the best. The forms most generally practised are, 1. Cleft-grafting, 2. Wedge-grafting, and 3. Whipgrafting.


1. Cleft-grafting.-We shall first describe and illustrate this mode, and afterwards refer briefly to the others. Here the stocks should be larger than the scions. The latter, which may be taken from the plants as required for use, should be well-ripened shoots, cut into lengths of about an inch and a half. The tops of shoots are seldom fitted for scions: two-thirds of their length is, generally speaking, as much as can be used with advantage. Each scion should have two, three, or four buds: two are sufficient to produce a fine plant. In performing the operation, first cut the stock quite level at the top; then insert the point of the knife at $a$, drawing it down towards the root in an oblique direction. Now make a corresponding cut, commencing at $c$, so that the two cuts terminate in a point $b$. Thus a piece of the stock is cut out, and the opening made is in the form of the letter V. With regard to the width and length of the cut, this must be regulated by the size of the grafts in hand: as to depth, the wound should not extend quite so far as the centre or pith of the stock. The piece being removed, the scion $d$, must be cut to fill up the vacuity; and the better it does this the greater is the chance of success. The most essential point is, to bring the inner bark of the scion in exact contact with the inner bark of the stock. When the scion is fitted in, it should be bound securely there with soft bast. It is then necessary to cover the place of junction with some composition that will effectually exclude air and water. For this purpose, take the following ingredients: five-eighths black pitch, one-eighth each of bees'-wax, tallow, and resin. Put them together in a glue-pot and melt them down over a slow fire. The best way of laying on the composition is by the use of a flat stick. It is not necessary to cover the whole of the bandage. Take care, however, that the lines where the barks join-indeed whatever part the wound extends to-be rendered impervious to air and moisture. The wound at the top of the stock should be covered, and also the summit of the scion. Care must be taken not to apply the composition too hot, or the bark will be scalded, and success rendered doubtful. A good way to test its fitness for use is, to place a little on the finger of the operator, when, if it does not cause any unpleasant sensation, it may be used without fear. This composition, though soft and pliable in a warm state, becomes hard and impenetrable when cold.
2. Wedge-grafting.-This is more simple than the foregoing. In many points the modes of procedure are the same: we have only to notice the differences. Instead of inserting the scion in one side of the stock, we here split the stock down the centre to the extent of an inch or so, and insert the graft in the slit. In preparing the graft, pare off equal parts from two opposite sides, that the lower end may be in the form of a wedge. Push the wedge in the slit of the stock, binding it firmly in, and covering with the composition as before.
3. Whip-grafting.-It is not important here that the stock and scion be of the same size. The former should be cut level at the top, as before, to within a few inches of the base: both should be cut in an oblique direction, taking care to make the cuts smooth and even, and of the same length and slope, that the bark
of the scion may lie exactly upon the bark of the stock. In laying the scion on, it is a good plan to hold the pot containing the stock in the left hand, and the knife must occupy the right. Now place the thumb of the right hand on the top of the stock, and insert the knife an inch or an inch and a half below, drawing it up obliquely to the summit. In making this cut, do not remove more than one-fourth of the diameter of the stock. Care must be taken to prevent the knife twisting, or the consequence will be an unlevel cut. The stock being prepared, take the scion in the left hand, place it on the knee, giving an eye to the size of the picce of wood removed from the stock : while in this position, pass the knife downwards, repeating the movement till a clean level cut is made, and the size of the lower end such that it may, when united to the stock, exactly replace the part removed. Thus, if one-third of the stock is removed, supposing that and the scion to be of equal dimensions, two thirds of the latter must be cut away. The unpractised eye and hand will not always be able to fit the stock by the first cut; and as it is important that the two barks should join, he may have to take a second or a third slice from one or the other. Well, he had better do so than leave the stock and scion badly placed; but the less of this trifling work the better. It is far easier to make a clean and level cut by a single draw of the knife, than by the most delicate after touches. When the scion is placed in a right position, it should be securely held there by the thumb and fingers of the left hand until it is bound firmly on the stock with the right. With regard to the treatment of the newlygrafted plants, if the stocks have been in bottom-heat before grafting, they must remain there; if taken from the open air, bottom-heat is not absolutely necessary, although it will increase the amount of success. Suckers are sure to spring from the stocks, and they often do so in an annoying abundance. They must be kept in check by pinching out their tops till the stock and scion are firmly united, and the latter pushed into growth, when they may be entirely eradicated.

When the scions first shoot the young leaves are very tender, especially when developed in heat. In most cases, too, they are but ill supplied with food in this early stage of growth, and shading is especially necessary. A strong current of air, or a hot sun, will injure them greatly. When the shoots are two or three inches long, the plants that have been grown in heat may be removed to a cold frame, where air should be admitted gradually, to harden them. Some will bloom the same year; but they should not be left to flower in heat, or they become drawn and weakly, producing thin and badly-coloured flowers.

It is advisable to remove the ligature in grafted Roses, and this should be done so soon as we suppose, by the growth of the scion, that the union is complete. If, when untied, the junction is not perfected, a single tie at top and bottom is sufficient to render all secure.

In plants grafted out of doors the composition should not be removed for two or three months; and that which covers the summits of the stock and scion may remain till it naturally disappears.

In reference to grafting Standard Roses, as they are invariably done in the open air, March is the best season. As fine and mild a day as March is likely to afford should be chosen. Grafting requires at all times an ordinary share of patience and perseverance; and if the practitioner be not possessed of more than an ordinary share, he had better not attempt it out of doors on a true March day; for to be kept in one position five minutes at a time, with a cold wind whistling round one's ears, is a trial of no common order. What a contrast between this and budding in a sultry July day! In grafting Standard Roses, the stock is of course considerably larger than the scion, and Cleft-grafting is the mode $I$ have pursued with the greatest success.

In grafted plants, as in budded ones, if the buds or eyes be allowed their natural course they break and form long single shoots. If these are stopped so soon as they have three or four good healthy leaves, a bud from the axil of each leaf will be developed, and a round bushy plant is formed.
5. Layers.-This mode of propagating is not so commonly resorted to as the others. Dwarf or bush Roses only are commonly laid. It is first necessary to dig with a fork for some space around the bush, breaking the soil quite fine, mixing in a little pulverized manure in the operation. The instruments wanted are, a knife, a flat trowel, and some pegs. All things being ready, select some of the best shoots, stripping off a few of the leaves at a distance varying from six

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Laying.
inches to two feet from the point of the shoot $a . a$. Now take the shoot in the left hand, and the knife in the right: insert the latter just beyond an eye $b$., on the upper side of the shoot, and pass it upwards steadily and evenly, cutting about half through the shoot, and for an inch and a half or two inches in length. This done, drop the knife and take the trowel. With the left hand bend the shoot close to the ground, that you may see the best spot in which to bury it, drive the trowel into the ground, working it backwards and forwards till a good opening is made, throw a little sand in the bottom of the opening, and press the shoot into it, pegging it down two or three inches under the soil. It is well to twist the shoot a little after the cut is made, so that the end of the tongue-as it is technically termed (b)-from which the roots will be emitted, may take a downward direction. Having made all secure, close in the soil, pressing it firmly round about the layer. It is a good plan to give each layer a small stick (c), to keep it from being agitated by the motion of the wind. As to the length of the shoot that should remain above ground, much will depend on the state of the wood. We should make the cut or tongue in wood that is young, yet firm. The larger the layer, of course the larger will be the plant, though not always the better rooted: the contrary is often the case. June, July, and August, are the months for laying; and should the weather continue dry, the layers should be occasionally watered. If laid in June and July, the free rooters will be ready to take off in November. It is well, however, to examine one or two of each kind to ascertain this point, as some root in an amazingly short space, others advance very slowly. When rooted they may be cut off within an inch or two of the tongue, taken up, and transplanted into beds, or to various spots in the garden. In the spring they may be cut down to within three or four eyes, and some of them will bloom in the summer or autumn. Their after treatment is the same as that of other Roses.
6. Suckers.-This is the least artificial of the artificial modes, though the Rose is not so much inclined to multiply itself by suckers as are many plants. The Scotch Rose (R. spinosissima) is perhaps, next to the Dog-rose, most given to this peculiarity. It pushes its shoots along under the ground, and they break through the surface at various distances. It is not very often they can be separated from the parent with roots; yet the underground stems will put forth roots, if carefully severed and transplanted. The autumn is the best time for doing this, and a spade with a sharp edge is the fittest instrument for the purpose.

## CHAPTER XII.

## ON EXHIBITING.

Every one who cultivates Roses may not do so with the design of becoming a candidate for floricultural honours; many are satisfied with the calm enjoyment which this, in common with other branches of the pursuit, affords : the quict mind, the healthful glow, yields them a sufficient recompence, and ample satisfaction. From such we must ask a little forbearance while we offer a few remarks on preparing for exhibition, for we should be doing an injustice to some of our subscribers were we to neglect this point altogether. Let us first consider the arrangement and exhibition of cut Roses. The old plan of shewing large crowded bunches is superseded by the more natural one of shewing three loose trusses of each variety. By the old method, a gorgeous display was created, but the principles of good taste were violated, and the connoisseur could find little to delight and interest him : each bunch was a confused mass of colour, with a ragged outline. By the method now in vogue, the flowers stand out separately, the variety is shewn in a graceful style, displaying flowers in different stages, from the tiny bud to the full-blown rose. So far, great improvement has been made; and we submit whether a classification of the varieties exhibited would not be another step in the right direction. A more heterogeneous mass could not be produced by any other genus than that commonly displayed by bringing together Roses of different groups, and arranging them indiscriminately. It is cheerfully admitted that certain groups may be mixed together without any grave offence against taste; but I have seen the beautiful but tiny Moss de Meaux completely smothered between two large French Roses, and the richness and beauty of the full deep colours of the latter marred by the soft and bewitching tints of an adjoining Tea-rose. And are similar cases unfrequent? By no means. Why not, then, arrange the kinds according to the classification of some popular grower? The beauty of each group would thus become apparent, and the abrupt transitions complained of be avoided.

We think it a pity that Horticultural Societies should limit the number of rarictics to be shewn. Would it not work better to reduce the number of trusses from three to two, or even one, and append a notice to the schedule that a bad
truss or caricty will be counted against the exhibitor? This would guarantee the exclusion of all inferior kinds, and secure a great number of varieties in a small space, and in a state approaching more nearly to that of nature. But to limit the exhibition to a small number of varieties, when hundreds or thousands are grown, does not admit of classification, and renders it impossible to give a full and true account of the genus.

With this statement of our views on exhibiting cut Roses, we respectfully submit two arrangements for the consideration of those who prepare the prize-schedules for our flower-shows.

1st, Roses in a collection, the number of varieties unlimited, classed in groups according to the arrangement of (name who), one, two, or three trusses only of one variety.
Or, 2dly,
A. Climbing Roses in a collection, the number of varieties unlimited (one, two, or three), trusses only of one variety.
B. Summer Roses (exclusive of the kinds shewn under letter A) in a collection, the number of varieties unlimited; classed in groups according to ; - trusses only of one variety.
C. Autumnal Roses in a collection, number of varieties unlimited, to be classed and shewn as in letter $B$.
By the arrangements above proposed we afford the tyro efficient aid in selecting varieties. The classification enables him to see at a glance the extent, variety, and beauty of each group, and he can select from each and every one a gradation of colour from the lightest to the darkest hues it may embrace. Or if he prefer one colour more than another, such can be noted down, and its free interspersion secured. Further still, while he admires the variety and richness of colour existing in one group, the regular outline of another, and is charmed by the delicious odour of a third, he is enabled to form a correct judgment of the comparative value of each, from the whole, or the most worthy, being brought at once under the eye. But these remarks are sufficiently extended, and we have to speak of dressing the boxes, and gathering and arranging the flowers.

The boxes may be made of inch deal of the simplest construction, and painted green. By the laws of some Societies, framed for general convenience, the lids must shift off at pleasure: no boxes are allowed to be placed on the exhibitiontables whose dimensions exceed eight inches in height when the lid is removed, and eighteen inches in width from front to back. A handle at either end is necessary, which should drop into the rood that the ends may approach closely. The box may be filled with moss, into which zinc tubes may be sunk, filled with water, to contain the flowers. The tubes may be about three inches deep, three quarters of an inch wide, with a rim half an inch broad. Nothing, perhaps, forms so agreeable a ground on which to place the flowers as green moss, which may be gathered in most hollows of woods, and from shady banks. It is not, indeed,
a bad plan to place the moss on the boxes a few days before they are wanted, keeping them in a light but shady place, sprinkling the moss with water once or twice daily.

With regard to the choice of flowers, we may presume that he only who had formed a tolerable collection, and must consequently have acquired some taste in Roses, would enter the lists as a competitor. We would therefore say, cut such flowers as appear best at the time wanted : a good variety may be in bad condition at a fixed period, and a second-rate one unusually fine. But the exhibitor must, in a certain degree, conform to the tastes of others; and there are points of beauty almost universally agreed on. The outline of Show Roses should be circular, free from all raggedness; the flowers should be full, and the petals arranged as regularly as possible; the larger the flowers the better, provided they are not coarse; and the colours should be varied with due care. In gathering the flowers, we would say, choose the morning for the purpose, ere the sun has risen upon them, or before he has had time to dim their beauty. When the place of exhibition is at a distance, it is often necessary to cut them the morning before. There is full occupation for two persons, besides the advantage of having a second opinion in cases where the merit of two or more flowers is doubtful. It is not always easy to determine this point satisfactorily, for we have not only to consider what a flower is, but what it is likely to become. The business of one should be to cull the flowers; that of the other to name and arrange them in the boxes. It is desirable that every stage of the flower should be presented to view; but if cut the morning before the day of show, the forwardest should not be more than three-quarters blown. Some of the stiff-petalled Roses, which remain a long time in perfection, may be made exceptions to this rule; but their number is few. When the flowers are gathered on the morning of show, some may be full-blown, when less judgment and foresight are necessary.

Some little of success perhaps depends on the taste with which the flowers are arranged. This requires a little study, and we would take nature for our model. Let the exhibitor walk among his plants occasionally with an eye to this point, and he will not fail to single out certain flowers remarkable for elegance of position : this is the true source from which to copy. A nice shoot or two, with good foliage, should be gathered with each kind, for the grace and beauty of the flowers are materially heightened by the judicious arrangement of foliage; and this is a point by which one may judge of the habits of a variety. As to the arrangement of colours, little need be said on that point. Much will depend on the materials in hand. Contrast should, I think, be aimed at; but with regard to the exact tints fitted for each position, the eye of him who arranges is usually best qualified to determine.

A neat and commodious method of naming is, to procure some deal sticks, about four inches long and half an inch wide, gradually tapering to a point. Let them be painted white, the names written in a round legible hand with a good dark pencil.

But the flowers are arranged, and what is to be done with them during the interval that must elapse ere they depart for the scene of competition? Shall the lids be placed on the boxes, and the flowers be kept closed from the air? By no means. Seek as cool a place as possible, where there is no draft, and where the light is not too strong. There place them till the time of departure. So necessary do many exhibitors consider it that the flowers should not be wholly closed from the air, that they have several holes made in the ends of their boxlids with a small augur. This I have found, by experience, a capital contrivance to admit the dust ; and if these holes are made use of, they should be stopped with corks when travelling on a dusty road.

But besides the flowers of Roses, the plants are now exhibited grown in pots; and it remains for us to say something of them. The advantages gained by their introduction are, that the characters and habit of the variety are shewn. Cutroses create a great display, but Pot-roses afford us more extensive information. We may propose to ourselves, while viewing them, these questions:-What is the habit of the variety? Is it a free bloomer, or otherwise? Is it a good trusser? a summer or autumn bloomer? These questions cannot be answered by presenting a mere flower, or bunches of flowers; but the introduction of Pot-roses offers the means of a ready solution. In cultivating these for exhibition, it is necessary to grow at least double the number required to be shewn. This is no overdrawn calculation, as all who have had any experience in the matter will testify. There is no difficulty in flowering every plant, but there is a difficulty in bringing them to perfection by a given time. Remember, the Rose is one of the most ephemeral of flowers, and the day of exhibition is a fixed one. These facts, however, should deter no one from growing for exhibition, for they affect all exhibitors alike : all fight on equal ground; and the greater the difficulties to contend with, the greater is the triumph when achieved. For exhibition-plants we should recommend most kinds to be grown on their own roots. Although with such the cultivator will not be able to appear in the field at so early a date, yet he may ultimately attain to a more distinguished position. Certain kinds will not last long in health when budded: superior skill and great attention may bring them to a high pitch of beauty; but despite of every after care they canker and fall into a state of retrogression.

The principal shows near the Metropolis are in May, June, and July; and to be enabled to shew in each month the plants must be divided into three lots. Those intended for the May exhibition must be grown in a green-house or frame with bottom-heat. It is my practice to select a good portion of the Tea-scented and other tender Roses for the first show, because they cannot remain out of doors during winter, and they improve under this particular culture. They should be pruned carly in November, and taken into the house or frame immediately, giving plenty of air, but keeping the frost out. By the end of February a gentle heat may be started, and increased as is found necessary to bring then in flower in proper time.

The plants intended for exhibition in June may be plunged out of doors in an airy yet sheltered situation, that the foilage may not be damaged by the wind. So soon as the buds shew colour, remove the plants to a frame or green-house, giving air abundantly night and day, and shading them from the sun.

The plants intended to bloom in July may also be grown out of doors: they should be autumnals exclusively; and by stopping the young shoots in April a perfect flowering is secured at that season. It is the practice with some to cut off the flowers of the autumnals shewn in May, removing the plants to a warm frame, by which treatment they flower again in July : this, however, we hesitate to recommend.

The detail of cultivation has been given in the chapter on Roses in Pots; it is our province here merely to speak of the management for exhibition. As the plants approach the flowering season, some will be found forwarder than others, owing to their position, or the habit of the variety. It is necessary, then, to calculate which are likely to be in perfection on the coming day, when means of accelerating or retarding must be had recourse to. If the former, a frame with bottom-heat is the best contrivance: if the latter, place them in a cold north frame, admitting air gradually. Care and forethought are especially necessary here. These changes of temperature must be brought about gradually; and a calm and sunny hour should be chosen to remove the plants from place to place. As well might an inhabitant of India be sent to dwell in the frozen seas, as a plant suddenly transmuted from a high to a low temperature. When the buds shew colour, any that are in advance of the mass may be plucked out, when the side-buds will rise and produce larger flowers. Have we, then, reached this stage of growth? A canvas awning must now be raised to shade the flowers. It should not be so thick as to exclude the light: its purpose is merely to break the sun's rays. As our flowers advance, our pleasures and anxieties increase. It is difficult to judge correctly of the time a bud requires to expand: some remain as buds for weeks after they shew colour; others expand very rapidly. The hard buds, of which we may instance Hybrid Perpetual La Reine, and Chinese Anteros, are slowest in expanding, and remain longest in a shewable state. The less double flowers, as Hybrid Perpetual Madame Laffay, and Tea Safrano, advance more rapidly, and are in general proportionally ephemeral. This is the best guide we can offer to the unpractised eye, though by no means an unerring one. If, after all our care, our specimens are far too early or too late, it is better to allow them their natural course than to resort to violent measures: it is better to shew fine specimens not arrived at, or beyond their glory, than to produce what might be construed as bad cultivation. Roses will not submit to the treatment in this respect which Geraniums and some other plants will endure.

We have already stated our views on tying up and training; but there is some doubt whether that system would tell best on the exhibition tables. There, one side is to the wall, so that at best not more than three quarters of a round plant
can be seen. Now it is evident, that by leaving the back of a plant bare, a greater display can be made with the same material; as of course the flowers which would have been needed there are brought into full sight. Yet a skilful judge will surely detect the false show; and if the round plants are in other respects nearly equal, we opine he would give his decision in their favour. Be this as it may, a perfect plant must yield its possessor a greater pleasure and more solid satisfaction than an imperfect one.
These remarks bring us to the period of exhibition. If the distance be great, the plants should be packed for travelling the day before. All is bustle and anxiety. A light spring-van is the best vehicle for their conveyance, the space in which, from twelve to eighteen large plants will fully occupy. The surface of the soil of the pots should be covered with nice green moss, which, if the plants have stems, may rise in the centre in the form of a cone. Each flower-bud must have a stick to support it during the journey, -unless the variety produce its flowers in trusses, when a stick to a truss is sufficient,-but should not be tied so tight as to prevent an easy motion. If the flowers are single, soft tissue paper should be drawn closely round them without compression : if produced in trusses, wadding may be placed among them, to support and prevent them from bruising each other. In packing, each plant should stand clear of the other, and all free from contact with the sides of the van. Between the pots, moss or sawdust should be tightly pressed, at least half their depth, to keep them from shifting. A light tilt must go over the van, to exclude sun, rain, or dust, the last of which, by the bye, it is not always easy to do. But all is ready, and there is nothing like being at the place of exhibition in time. A careful person ought to accompany them, as the pace at which they travel should be a steady walking one. Attention, John! From home to the place of exhibition, all depends on you. You must neither trot, gallop, nor canter. If you do, the consequences will be disastrous. Put your horse to his easiest walking pace, having reckoned up beforehand the time he will require for the journey. Having arrived early, you will find the tents only partially occupied; but the place for Roses, as for other objects, is already assigned. The north side of the tent is the best ; indeed, for Roses as cool and shady a place as possible should be apportioned, as perfect flowers will wither in a few hours in a sunny or hot position. In proceeding to set up the plants, it is well to calculate the elevation at which they shew best; to which raise them by means of blocks of wood, of different thicknesses, about the diameter of the bottom of the pots. The sticks used as supports in travelling should be withdrawn. When the plants are all nicely adjusted, each should have the name placed to it in a position where easily seen, written in a bold legible hand, or done in the Egyptian style with Indian ink. At the grand Metropolitan exhibitions visitors are often so mumerous that many cannot approach the objects exhibited: for their information, then, this is particularly desirable. All is now finished, and we await the decision of the judges, viewing the productions of our
contemporaries, and anticipating the result. Perhaps, on returning to the tents after judgment has been pronounced, our plants are not so high in the scale as we expected to find them. A feeling of disappointment may arise. Shall we take umbrage at it? No, certainly not. This would be unjust, ungenerous. Let us ask ourselves this question: Which is the more likely, that the Censors-men selected on account of their professional knowledge and known probity-men who have no knowledge of either things or parties,-which, we say, is the more likely, that they should have shewn an indifference to, or prejudice against, our plants, or that we, the owners thereof, have been indulging in an overweening fondness? The answer is apparent. And let us ask ourselves again, if there is any disgrace in being beaten? Certainly none. Every place here is honourable. If $\boldsymbol{A}$ produces good plants, it is no discredit to him that $B$ produces better. Nor would it always be correct reasoning to say that the latter is the more skilful cultivator. The air, or the soil, or the means at the disposal of $B$, may enable him to accomplish with ease that which is impracticable with $A$. If our plants are good, never mind those of our contemporary being better. Are not both engaged in the same work, both interested in the advancement of a favourite flower? Let us persevere, and we may probably reach the summit of our ambition at some future time.

In packing for returning the same care is requisite as before, if the plants are intended to be shewn elsewhere, or indeed if any store is set by the flowers yet unfolded. Under other circumstances, the flowers may be cut off, which saves much time in packing and travelling. But if the flowers are preserved, the plants may serve for other shows, although they must be considered in greater perfection when possessed of expanded flowers and others yet to come, than when shewing expanded flowers only.

When the flowering is over, the flower-stalks should be cut off, and a second growth will shortly ensue. The Autumnals, which bloomed in May, will flower again in August; those of June, in September; and if those of July are placed in a warm green-house they may be kept in flower till Christmas.

## CHAPTER XIII.

## SELECT LISTS OF KiNDS SUITED FOR VARIOUS PURPOSES.

## A. Roses recommended to those who cultivate for exhibition, or who admire a large full flower.

Sumarer Roses. Group 4. Damask: Cardinal d'Amboise, Madame Hardy, Madame Söetmans, Triomphe de Rouen. Group 5. Provence: Adrienne de Cardoville, Belle Portugaise, Comtesse de la Roque, Cristata, Laura, New Cabbage. Group 7. Moss: Alice Leroi, Blush, Comtesse de Murinais, Comtesse de Noé, Etna, La Diaphane, Laneii, Louise Colet, Rose pale, White Bath. Group 8. French: Adèle Prevost, Belle Alzindor, Belle Rosine, Bérénice, Boula de Nanteuil, Cambronne, Cecile Boireau, Celestine, Clorinde, Colonel Coombs, Columella, Couronne d'Amour, Cyparisse, D'Aguesseau, Dr. Dielthim, Duc de Trevise, Duc de Valmy, Eclat des Roses, Enchantress, Franklin, Gloire des Amateurs, Graim Dosk, Grandissima, Guillaume Tell, Honneur de Montmorency, Ipsilanté, Jeanne d'Albret, Jeanne de Laval, Jeanne d'Urfé, Julie d'Etanges, Kean, La Ville de Gand, La Ville de Londres, La Volupté, Latone, Latour d'Auvergne, Leo the Tenth, Marguerite Lansezeur, Matthieujie Molé, Ne plus ultra, Nelly, Ohl, Omphale, Orpheline de Juillet, Pashot, Pierre Jaussens, Randolph, Reine des François, Sanchette, Scipio, Soliman, Sophie Duval, Surpasse Tout. Group 9. Hybrid French: Alette, Devigne, Dubois Dessauzais, Emérance, La Vestale, Pauline Garcia. Group 10. Hybrid Chinese: Belle Marie, Brennus, Charles Foucquieur, Chénédolé, Comtesse Plater, Galien, Général Jacqueminot, Hébé, Lady Stuart, Marjolin. Group 11. Hybrid Noisette: Madeline, Nathalie Daniel. Group 12. Hybrid Bourbon: Charles Duval, Comte Boubert, Coupe d'Hébé, Eliza Mercceur, Legouvé, Paul Perras, Richelieu (Duval), Sylvain, Tippoo Saib, Victor Hugo. Group 13. Alba : Félicité Parmentier, La Séduisante, Madame Audot, Madame Campan, Madame Legras, Princesse Lamballe. Group 15. Austrian: Persian Yellow. Autumnal Roses. Group 25. Rose de Trianon: Duke of Devonshire, Earl of Derby, Sidonie. Group 27. Hybrid Perpetual: Baronne Prevost, Comte d'Egmont, (Div. I.) c c

Dr. Marx, Duchesse de Gailliera, Duchess of Sutherland, Jacques Lafitte, La Reine, Madame Laffay, Reine des Fleurs, Robin Hood, William Jesse. Group 32. Crimson Chinese: Eugène Beauharnais, St. Prix de Breuze. Group 33. Chinese: Archduke Charles, Clara Sylvain, Madame Breon. Group 35. Tea-scented: Bougère, Comte de Paris, Devoniensis, Josephine Malton, La Renommèe, Maréchal Bugeaud, Moiret, Silène, Souvenir d'un Ami, Triomphe du Luxembourg. Group 36. Bourbon: Acidalia, Dupetit Thouars, Le Camée, Le Florifère, Lichas, Madame Angelina, Madame Nerard, Madame Souchet, Marquise de Moyria, Souchet, Souvenir de la Malmaison. Group 38. Noisette: Lamarque, Phaloé.
B. Free-blooming and showy varieties; flowers not so full as in letter $A$. Adapted for ornamenting the lawn or pleasure-ground; also excellent for planting in groups or avenues: the habit of flowering is elegant, and the effect of the trees, whether viewred singly or in masses, fine.
Summer Roses. Group 4. Damask: Bouvet, Deesseflore, Duke of Cambridge, Leda. Group 5. Provence: Adèle de Senange, De Nancy, D'Avranches, D'Angers, D'Abbeville, Délice de Flandre, Hypacea, Mathilde de Mondeville. Group 7. Moss: De Metz, Eclétante, Globuleuse, Luxembourg, Presque partout, Princess Royal, Splendens. Group 8. French: Anacreon, Antonine d'Ormais, Arthémise, Athalie, Assemblages des Beautés, Avenant, Burgeois Gentilhomme, Celinette, Cerise superbe, Cocarde rouge, Desiré Parmentier, Duchess of Kent, Duchess of Buccleugh, Feu brilliante, Fleur d'Amour, Gonatre, Grandesse Royale, Napoleon, Nouvelle Provins, Octavie, Pharericus, Schrymaker, Superb Tuscany, Suzanne, Temple of Apollo, Vitruvius. Group 9. Hybrid French: Aspasie, Duchesse d'Angoulême, Princesse Clementine. Group 10. Hybrid Chinese: Alphonse Maille, Aurora, Beauty of Billiard, Blairii No. 2, Chénédolé, Le Météore, Ne plus ultra, Parigot, Princess Augusta, Smith's Seedling. Group 11. Hybrid Noisette: Adalilla, Belle de Rosny, La Colombine, Madame Plantier, Marie de Nerrœa. Group 12. Hybrid Bourbon: Capitaine Sisolet, Comtesse Molé, Elizabeth Plantier, Great Western, Henri Barbet, Triptolemus, Vandhuisson. Group 13. Alba: Etoile de la Malmaison, Sophie de Bavière. Group 15. Austrian: Harrisonii, Williams's Double Yellow. Autumnal Roses. Group 25. Rose de Trianon: Yolande d'Aragon. Group 27. Hybrid Perpetual: Comte de Montalivet, Edward Jesse, Lady Fordwich, Lady Sefton. Group 28. Bourbon Perpetual: Clementine Duval. Group 32. Crimson Chinese: Belle de Florence, Fabvier. Group 35. Tea-scented: Archduchesse Thérèse, Bride of Abydos, Madame de St. Joseph, Madame Roussell, Mirabile, Nisida, Taglioni. Group 36. Bourbon: Bouquet de Flore, Comice de Seine et Marne, Duc de Chartres, Glory of Paris, Hennequin, Pierre de St. Cyr. Group 38. Noisette: Aimée Vibert, Comtesse de Tolosan, Desiré Roussell, Euphrosyne, Fellenberg.

## C. Pillar or Pole Roses.

Summer Roses. Group 4. Damash: La Ville de Bruxelles, Madame Hardy. Group 7. Moss: Alice Leroi, Comtesse de Murinais, Emperor, Princess Adelaide, Princess Royal. Group 10. Hybrid Chinese: Brennus, Chenédolé, Decandolle, Fulgens, Galien, Madame Rameau, Petit Pierre, Richelieu, Vingt neuf Juillet, Vulcan. Group 11. Hybrid Noisette: Madame Plantier, Madeline. Group 12. Hybrid Bourbon: Charles Duval, Great Western, Henri Barbet, Hortensia, La Majesteuse, Legouvé, Paul Perras, Victor Hugo. Group 13. Alba: Félicité Parmentier, New Blush Hip. Group 18. Nultiflora: Russelliana. Autumnal Roses. Group 27. Hybrid Perpetual: Louis Buonaparte, Mrs. Elliot. Group 36. Bourbon: Acidalia, Amenaide, Bouquet de Flore, Imperatrice Josephine, Lavinie d'Ost, Madame Aude, Madame Desprez, Madame Lacharme, Marquise d'Ivry, Pierre de St. Cyr. Group 38. Noisette: Belle d'Esquermes, Boulogne, Du Luxembourg, Grandiflora, Hardy, Pourpre de Tyre.
D. Climbing Roses of vigorous growth, suited for covering arches, trelliswork, \&c., quickly.
Summer Roses. Group 1. Boursault: Amadis, Drummond's Thornless, Elegans, Gracilis, Inermis. Group 16. Ayrshire: Countess of Lieven, Ruga, Splendens. Group 17. Evergreen: Félicité perpetué, Princesse Louise. Group 18. Multiflora: De la Grifferaie, Graulhie. Group 19. Hybrid: Garland, Madame d'Arblay. Group 20. Rubifolia: Beauty of the Prairies. Autumnal Roses. Group 29. Rose de Rosomène: Eclair de Jupiter, Gloire de Rosomène. Group 37. Musk: Double Red, Eponine, Princesse de Nassau. Group 38. Noisette: Belle d'Esquermes, Du Luxembourg, Grandifora, L’Angevine, Pourpre de Tyre.
E. Climbing Roses for a shady wall, or fence, with a North, North-east, or North-west aspect.
Summer Roses. Group 1. Boursault: Red, Amadis. Group 16. Ayrshire : Countess of Lieven, Dundee Rambler, Queen of the Belgians, Ruga, Splendens. Group 17. Evergreen: Banksiæflora, Carnea Grandiflora, Félicité perpetué, Leopoldine d'Orleans, Melanie de Montjoie, Myrianthes renoncule, Princesse Marie, Rampant, Rosea plena, Spectabile. Group 18. Multiflora: Russelliana.
F. Climbing Roses for a sunny wall or fence; aspect South or East.

Summer Roses. Group 18. Multiflora: Alba, Grevillei. Group 21. Banhisia: White, Yellow. Autumnal Roses. Group 22. Macartney: Alba Simplex, Maria Leonida. Group 23. Microphylla: Du Luxembourg, Rubra, Triomphe de Macheteaux. Group 35. Tea-scented: Aurora, Buret, Originale. Group 38. Noisette: Cloth of Gold, Desprez, La Biche, Lamarque, Solfaterre, Vittellina.
G. Climbing Roses for the Conservatory.

Summer Roses. Group 21. Banksie: Jaune Serin, Odoratissime. Autumnal Roses. Group 22. Macartney: Lucida duplex. Group 35. Tea-scented: Délice de Plantier, Eugénie Desgaches, Madame de St. Joseph, Marie de Medicis, Moiret, Niphetos, Princesse Hélène, Safrano. Group 36. Bourbon: Lady Canning.
H. Trailing Roses,for covering banks, $\oint$ © $c$.

Summer Roses. Group 16. Ayrshire: Alice Gray, Angle, Countess of Lieven, Lovely Rambler, Miller's Climber, Thoresbyana. Group 17. Evergreen: Banksiæflora, Brunonii, Félicité perpetué, Leopoldine d’Orleans, Myrianthes renoncule, Rampant.

## I. Weeping Roses.

Summer Roses. Group 1. Boursault: Amadis. Group 7. Moss: Princesse Adelaide. Group 10. Hybrid Chinese: Belle Thurette. Group 11. Hybrid Noisette : Adolphe. Group 15. Austrian: Harrisonii. Group 16. Ayrshire: Bennett's Seedling, Splendens. Group 17. Evergreen: Félicité perpetué. Group 18. Multiflora: Laura Davoust. Autumnal Roses. Group 36. Bourbon: Marquise d’Ivry, Pierre de St. Cyr. Group 37. Musk: Princesse de Nassau. Group 38. Noisette: Du Luxembourg.
K. Roses for planting in beds, where the design is to obtain well-contrasted masses of colours.
Summer Roses. Group 4. Damask: Deeseflore. Group 5. Provence: Unique or White. Group 7. Moss: Prolific. Group 10. Hybrid Chinese: Beauty of Billiard, Belle Thurette. Group 11. Hybrid Noisette: Madame Plantier. Group 15. Austrian: Harrisonii. Autumnal Roses. Group 27. Hybrid Perpetual: Madame Laffay. Group 32. Crimson Chinese: Belle de Florence, Belle Emilie, Fabvier. Group 36. Bourbon: Armosa, Mrs. Bosanquet, Queen, Paul Joseph, Princesse Clementine. Group 38. Noisette: Le Pactole, Miss Glegg.
L. Roses for Рot-culture: the Tea-scented, requiring a Greenhouse or frame.

Summer Roses. Group 7. Moss: Foncée, Gracilis, Heloise, Malvina, Princesse Royale (Portemer), White Bath. Group 10. Hybrid Chinese: Comtesse de Lacépède, Général Allard, Général Jacqueminot, Général Kleber, Lady Stuart, Triomphe de Guerin, Velours episcopal. Group 11. Hybrid Noisette: Leopold de Bauffrémont. Group 12. Hybrid Bourbon: Charles Duval, Coupe d'Hébé, La Dauphine, Myrobolan, Paul Perras, Richelieu (Duval). Group 13. Alba: La Sédnisante, Madame Audot, Madame Legras, Sophie de Marsilly. Group 15. Austrian: Persian Yellow. Autumnal Roses. Group 27. Hybrid

Perpetual: Aubernon, Augustine Mouchelet, Baronne Prevost, Commandant Fournier, Comte de Montalivet, Comte d'Egmont, Comtesse de Rambuteau, Comtesse Duchâtel, Cornet, Dr. Marx, Duchess of Sutherland, Duchesse de Galliera, Duchesse de Montpensier, Gloire d'Angers, Jacques Lafitte, Lady Alice Peel, Madame Laffay, Mathilde Jourdeuil, Reine des I'leurs, Robin Hood, William Jesse. Group 28. Bourbon Perpetual: Comtesse Jaubert, Eugènie Guinoiseau, Vicomtesse de Belleval. Group 29. Rose de Rosomène: Comte d'Eu, Géant des Batailles. Group 32. Crimson Chinese : Alcine, Eugène Beauharnais, Reine d'Angleterre. Group 35. Tea-scented: Abricoté, Adam, Bougère, Devoniensis, Eliza Sauvage, Josephine Malton, Julie Mansais, Moiret, Souvenir d'un Ami, Triomphe du Luxembourg, Vicomtesse de Cazes. Group 36. Bourbon: Angelina Bucelle, Armosa, Beauté de Versailles, Cérès, Cézarine Souchet, Charlemagne, Comice de Seine et Marne, Comte de Rambuteau, Coupe d'Hébé, Dr. Hardouin, Georges Cuvier, Julie de Fontenelle, Justine, Le Camée, Leveson Gower, Lichas, Madame Angelina, Madame Béluze, Madame Tripet, Marianne, Marquise de Moyria, Nerine, Oscar Leclerc, Paul Joseph, Princesse de Modena, Raymond, Souchet, Souvenir de la Malmaison, Sydonie Dorisy, Thérèsia Margat, Thérèsita, Vicomte de Cussy. Group 36. Noisette: Clara Wendel, La Victorieuse, Miss Glegg.
M. Winter Roses, to bloom from November to February.

Group 29. Rose de Rosomène: Comte d'Eu, Gloire de Rosomène. Group 32. Crimson Chinese: Alba, Bardon, Belle de Florence, Fabvier. Group 35. Teascented: Bride of Abydos, Caroline, Fragrans, Goubault, La Sylphide, Laura, Mondor, Nina, Nisida. Group 36. Bourbon: Amarantine, Armosa, Celimène, Comice de Seine et Marne, Justine, Queen, Splendens. Group 38. Noisette: Fellenberg, Vittelina.

## N. Roses for Forcing.

Summer Roses. Group 7. Moss: Common, Prolifère. Group 12. Hybrid Bourbon: Charles Duval, Philibert Delorme. Group 13. Alba: Sophie de Marsilly. Group 15. Austrian: Persian Yellow. Autumnal Roses. Group 26. Damask Perpetual: Duchesse de Rohan, Mogador. Group 27. Hybrid Perpetual: Alphonse Karr, Duc d'Aumale, Duchess of Sutherland, Earl Talbot, Julie Dupont, La Reine, Louis Buonaparte, Madame Laffay, Melanie Cornu, Pourpre Royale, Prince Albert, Princesse Belgiojosa. Group 28. Bourbon Perpetual: De Neuilly. Group 32. Crimson Chinese: Abbé Mioland, Marjolin. Group 33. Chinese: Anteros, Cels multiflora, Clara, Clara Sylvain, Virginale. Group 35. Tea-scented: Barbot, Bougère, Eugènie Desgaches, Fond jaune de Paillet, Madame Guerin, Mansais, Maréchal Bugeaud, Miranda, Moiret, Princesse Marie, Yellow of Smith, Triomphe d'Orléans, Triomphe du Luxembourg, Turgot. Group 36. Bourbon: Acidalia, Charles Souchet, Comte de Rambuteau, Edouard

Desfosses, Margat jeune, Reine des Vierges, Souchet. Group 38. Noisette: La Victorieuse.

## O. Certain Seed-bearers.

Summer Roses. Group 5. Provence: Descemet. Group 7. Moss: Celina, Du Luxembourg. Group 8. French: Duc d'Orléans, Eblouissante de Laqueue, Rosa mundi. Group 10. Hybrid Chinese: Chénédolé, Général Allard. Group 12. Hybrid Bourbon: Athelin, Coupe d'Hébé, Great Western, Henri Barbet, Paul Perras. Group 15. Austrian: Harrisonii. Group 16. Ayrshire: Splendens. Autumnal Roses. Group 27. Hybrid Perpetual: Duchess of Sutherland, Madame Laffay, William Jesse. Group 36. Bourbon: Bouquet de Flore, Cérès, Malvina.

## P. Roses for Window-culture.

Autumnal Roses. Group 32. Crimson Chinese: Carmin d'Yèbles, Duchess of Kent, Louis Philippe. Group 35. Tea-scented: Belle Allemande, Hardy, Safrano, Taglioni. Group 36. Bourbon: Bouquet de Flore, Mrs. Bosanquet, Souvenir de Dumont D'Urville. Group 38. Noisette : Aimèe Vibert, Euphrosyne.
Q. Best Yellow Roses.

Summer Roses. Group 15. Austrian: Harrisonii, Persian Yellow. Group 35. Tea-scented: Devoniensis, Diana Vernon, Eliza Sauvage, Pellonia, Princesse Adelaide, Safrano, Vicomtesse de Cazes. Group 38. Noisette: Clara Wendel, Pactolus, Solfaterre.

## R. Very Sweet Roses.

Summer Roses. Group 5. Provence: Rachel. Group 10. Hybrid Chinese: Riego. Autumnal Roses. Group 26. Damask Perpetual: Belle Fabert Crimson, Joséphine Antoinette, Laurence de Montmorency, Louis Puget, Minerva. Group 27. Hybrid Perpetual: Aubernon, Clementine Seringe, Fulgorie, Marquisa Boccella. Group 30. Perpetual Scotch: Stanwell. Group 35. Teascented: Adam, Belle Allemande, Goubault, Hamon, Nisida. Group 38. Noisette: Desprez.

## S. Very Brilliant Roses.

Summer Roses. Group 8. French: Athalie, Eblouissante de Laqueue, Feu brilliante. Group 10. Hybrid Chinese: Chénédolé, Beauty of Billiard, Smith's Seedling. Autumnal Roses. Group 27. Hybrid Perpetual: Dr. Marx. Group 29. Rose de Rosomène: Géant des Batailles, Grand Capitaine. Group 32. Crimson Chinese: Fabvier. Group 36. Bourbon: Dupetit Thouars, Le Grenadier.

## 7. Striped Roses.

Summer Roses. Group 5. Provence: Unique panaché superb. Group 7. Moss: Panaché pleinc. Group 8. French: Aramis, Mécène, Eillet flamande, Eillet parfait, Perles des Panachés, Picotée, Rosa mundi, Tricolore d'Orléans, Village Maid. Group 9. Hybrid French: Eulalie Lebrun.

## V. Spotted and Mottled Roses.

Summer Roses. Group 8. French: Berlèze, Comte de Murinais, Donna Sol, Duc de Bassano, Duc d'Orléans ponctué, La Splendeur, Lavoisier, Nero, Omphale, Renoncule ponctué, Superb Marbled. Group 13. Alba: Madame Campan.
W. Miniature Roses for edgings of Rose-beds.

Summer Roses. Group 6. Miniature Provence: Dwarf Burgundy, De Meaux, Spong, White Burgundy. Autumnal Roses. Group 34. Lanrencianas: Fairy, Nemesis, Rubra.
X. Roses for Hedges.

Scotch, various, Group 3.
Madame Laffay, Group 27.
Abbé Mioland, Group 32.
$Y$. Roses for the Shrubbery.
Old Damask, Group 4.
Bishop's Provence, Group 5.
Cabbage Provence, Group 5. Rosa mundi, Group 8.

Common Chinese, Group 33.
Mrs. Bosanquet, Group 36.
Pierre de St. Cyr, Group 36.

Hybrid Chinese, various, Group 10. Celestial, Group 13. Four Seasons, Group 24. Duc d'Isly, Group 27.

End of Division I.

## DIVISION II.

AN ARRANGEMENT, IN NATURAL GROUPS, OF THE MOST ESTEEMED VARIETIES OF ROSES RECOGNISED AND CULTIVATED IN TIIE VARIOUS ROSE GARDENS, ENGLISH AND FOREIGN; WITH FULL DESCRIPTIONS, AND REMARKS ON THEIR ORIGIN, AND MODE OF CULTURE.

In Uno 3 四imary olasses.

CLASS I.
SUMMER ROSES; BLOOMING IN MAY, JUNE, AND JULY.

CLASS II.
AUTUMNAL ROSES; BLOOMING FROM MAY TILL NOVEMBER, OR LATER, IF NOT PREVENTED BY FROST.

## INTRODUCTORY REMARKS.

## ON THE ORIGIN OF THE FLORICULTURAL GROUPS.

The word 'Rose' is generally allowed to have been derived from the Celtic rhodd, or rhudd, signifying ' red,' in allusion to the colour of the flowers of most of the species. We may trace a great resemblance in the names by which various nations distinguish this plant. In the Greek it is called Rodon; in Latin, Rosa; in French, Rosier; in Italian, Rosajo; in Spanish, Rosal; in Portuguese, Roseira ; and in German, Rosenstock.

According to the authority of most Botanists, the genus Rosa stands divided into sections, which are subdivided into numerous species, the distinguishing characters of which consist in the colour, shape, size, \&c. of various organs, such as the leaves, prickles, flowers, and fruit. On the value of these characters, as constituting distinct species, botanical writers are, however, by no means agreed. While in the "Rosarum Monographia" seventy-eight species are described (besides others recorded as doubtful species); and the Messrs. Loddiges have in their Catalogue a far greater number; M. Boitard, a modern French author, stoutly maintains there are but three.*

It is not my intention here to enter into the botany of the Rose + ; but I would state it to be my impression, that the differences of opinion arise in some measure from the unsettled definition of the word 'species.' When in conversation with tyros, I have often been asked what constitutes a species. And this question seems so necessary to be answered, in order that the arrangement of the varieties may be rightly understood, that I shall here offer a reply.

Mirbel says, "A species is composed of a succession of individuals, which have descended one from the other, in a direct line, whether by seed, or a simple separation of parts.

[^11]" We find commonly in the individual all the characters which distinguish the species to which it belongs from all other species in the vegetable kingdom."
M. Boitard accepts the first sentence, but repudiates the other, and places in its stead, "Each individual of which is capable of reproducing, by seed, fertile individuals, possessing one or more characters in common with the parent, and invariable in all."

In the Introduction to Lindley's "Rosarum Monographia" we find the following definition given :-"By species, I wish to be understood here to mean, an assemblage of individuals, differing in particular respects from the rest of the genus, but having more points of affinity among themselves than with others; their union being therefore natural."-Ros. Mon. Intro. p. 18.
"We assemble under the name of species," says Decandolle," all the individuals which bear sufficient resemblance to each other to lead us to belicve that they have originally descended from a single being, or a couple of beings.-Physiologic Végétale, tome ii. p. 688.

Although not agreeing altogether in the views of M. Boitard, I would state my conviction, that most Botanists have been too ready in admitting, as species, plants of a genus so remarkable for its disposition to vary : and if we adopt Decandolle's definition, I think that many of the so-called species are nothing more than hybrids, which, to use his words, " have originally descended from a single being, or a couple of beings." I have been led to this conclusion more particularly from observations in raising seedlings, among which it is not uncommon to find plants differing exceedingly from their parents. I think we may accept the second definition, because with an eye to that the genus was divided in the "Rosarum Monographia;" and that the division there made has met the views of many subsequent writers, may be gathered from the extent of their extracts from that work.

But it is necessary to consider other questions, which the discussion of this invariably gives rise to. The tyro having satisfied himself as to what constitutes a species, we may suppose the next questions to be, What was the origin of the Floricultural Groups? what the real difference between these groups? and how may one be enabled to refer any variety brought before him to its proper position?

We need scarcely say that the Botanist's sphere of labour is widely different from the Florist's. The former collects and examines the productions of nature, arranging them in classes and orders; which he again divides into genera and species, pointing out their properties and uses. The Florist here takes up the work. Once in possession of species, he applies the art of culture, with the view of fashioning them to his own taste. Let us confine our remarks to the department of the Florist; and as varieties usually originate with him, we may presume that he is competent to answer the above questions.

Having the species, or varieties produced from species, at his command, he saves sed from them, which he sows; and from the proneness of Nature's offspring to
assume new forms and tints, hence arise individuals differing from their parents. These are commonly termed varicties; and he bestows names on such of them as he deems improvements on former kinds, and therefore worthy of public notice.

But the Florist does more than this. He does not rest satisfied with the simple workings of nature. Her march is too slow for him. He strives to anticipate her. He brings together varieties of different species, and, hybridizing them, he effects new combinations-produces new races*; the individuals of which differ more widely in appearance, and which may eventually become so numerous, as to induce him to group them, that they may be the more readily comprehended. To accomplish this end, he seizes hold of external characters,-whether it be the colours of the flowers, as in Carnations, \&c., or the general appearance of the plant, as in Roses,-and forms a system of arrangement of his own ;-not strictly botanical, perhaps, but popular and useful. Such is the origin of the Floricultural Groups. As to the differences between these groups, we shall point out, as we approach each one, the characters which distinguish it from all others.

Now, it will be tolerably evident, that, to be able to group varieties correctly, some practice among Roses, combined with previous study, is necessary. If an individual wish to become sufficiently acquainted with Roses to enable him to do this, I would say, let him first study the features of the species from which the Florist's groups have descended. Let the groups be considered next ; then the varieties; which, though ever so variously hybridized, will for the most part be readily understood. A hybrid may sometimes be met with, whose place it may at first sight be difficult to determine; but in such case a second or third inspection, and a little reflection, usually solve the difficulty. To illustrate this remark, let us suppose the existence of a variety due to the hybridizing of a Damask with a Hybrid Provence Rose. The Hybrid Provence being a hybrid between the French and the Provence, such variety might partake of the nature of both these species, and also of the Damask parent. These are, on the authority of most Botanists, three distinct species. Well, supposing the features of each to be visible in the new variety, where is the place for such a hybrid? We would say, Is it sufficiently original in character to demand the formation of a new group? If so,

[^12]this is the proper course to pursue; and it is thus that several new groups have of late years been added. The Hybrid Perpetuals, for instance, are of modern date; and it must be admitted by all, that for these hybrids a new group was necessary. But supposing this new individual to possess no very distinct features, then will not the characters of any one species or group predominate? Undoubtedly they will : and the variety should be referred to that group to which the preponderance of similar external characters denote it most intimately to belong.

If we glance at the species from which the beautiful varieties which decorate our gardens have sprung, we find nearly all are natives of civilized countries, and have been for some years known and cultivated in Europe. This will account for the number of varieties we possess from them. It is probable that many other species, which are at present only known as species, will eventually give birth to esteemed garden kinds; that fresh groups will arise, possessed of distinct characters from those we already possess. If these anticipations be realized, what a genus will that of the Rose become! And are we not strengthened in this supposition by the appearance at the present time of numerous varieties raised from the Rosa Rubifolia, which, till lately, was only known to us as embellishing with its pale red blossoms the prairies and forests of North America? There is no doubt some of the species are more disposed to improvement than others, but all are capable of it: and I believe that, when our cultivators shall become tired of working upon the garden kinds they already possess, they will direct their attention to others of the species, and bring forth the treasures they are capable of producing.

When we look at the species with single or semi-double flowers, which are the types of the present garden varieties, and compare them with those varieties, the contrast may well make us inquire-Have the latter really descended from these species? So greatly are they improved in form and texture of petal-increased also in size-changed from single to double-and varied in colour to a remarkable degree-that I do not wonder at persons unacquainted with the effects of cultivation on the wild species, wishing to know the process of development before they accredit statements such as these. We may fairly presume, however, that such is their origin. But if so, how has such a change been wrought? We reply, Simply by a long course of careful and systematic culture. What was the Rose, comparatively speaking, fifty, or even thirty years since? There are, doubtless, some admirers of the genus who can glance retrospectively to the former period, and trace the gradual alteration from flimsy semi-double varieties, few blooming in the autumn, to the full bold flowers of the present day, so exquisite in colour, so symmetrical in form. In order to trace their descent, it is necessary to revert to the species, which we must suppose existing in a wild state. We know little of cultivation as pursued in remote ages; but may be justified in presuming that seeds of the Rose were sown, as well as those of other trees and plants. It is recorded that the Romans did this, but we now allude to times anterior to these. Now, supposing the seeds of the wild species to have been gathered and sown, Nature's stores thus opened, she would yield forth her treasures, here as elsewhere,
in rich abundance: the plants raised would produce flowers varying in colour, size, and degree of fulness.* We may suppose the handsomest of these would be cherished most, and the probability is, seeds would be saved from such : hence we might expect to obtain a variety as before, and a further advance in beauty. So on from time to time, the improvement taking place so gradually as to fix the attention only of the curious in these matters; or if, at any period, a great advance had been made, it would not have been considered worthy of record in less civilized times, when the constant occurrence of important changes and stirring events kept men in a state of excitement, disquietude, and doubt. Ages might thus roll away, and the species be not marvellously changed from their primitive form. But following the stream of time, we reach the period when the raising of plants became a settled occupation : soon men turned their attention to the improvement of races; then the sexes of plants was generally acknowledged; and, finally, the effects of artificial fertilization were made known, and the art practised. The latter was indeed a grand stride in the path of improvement: by its pursuance, man stepped in to the aid of nature, and the results are strikingly visible.

Although departing from our subject, yet, to render this hypothesis more plausible, let us glance for a moment at analogous cases.

Let us turn to the Heartsease, or the Dahlia, whose progress from the species to the present state has been more rapid, and has fallen within the pale of more general observation.

It is well known that the beautiful garden varieties of the Heartsease are descended from the Viola tricolor and Viola lutea of Botanists, both species indigenous to Britain. They had long been grown in the borders of flower gardens, and the flowers had no doubt become varied in colour and size; but I believe it is not more than thirty years since Mr. Thompson, of Iver, first commenced their cultivation with the expectation of improving them. They were then, perhaps, not very far removed from the species. He collected several kinds, and saved seed from them promiscuously. From the plants thus raised, some were larger and handsomer than their parents : these he reserved, saving seed from such; and by continuing to reserve and save seed from the finest varieties, and by planting them in the most favourable soil, he materially improved them. He did not long work single-handed : other Florists joined him, and the results are now before us; -the flowers are changed from an irregular and indescribable form, and become quite circular. I do not know whether he adopted artificial fertilization in his course of practice, but others have done so.

Take another instance. The Dahlia, when first introduced to England, was single; the flowers had but one row of petals, the centre being occupied with a yellow disk; they resembled a single Aster. The first double Dahlias had long,

[^13]narrow, flat, pointed petals, and were very different in character from the present favourites. The Florist and Amateur disliked the pointed flat-petalled flowers, and they raised an ideal standard of perfection. All their endeavours were directed towards the attainment of this. Dahlias, said they, should not be flat flowers, but circular, forming half a ball: the petals should not be long and pointed, but short, rounded at the edge, and cupped. Now mark the change that has followed. The Dahlia has, so to speak, been remodelled.

So, doubtless, it has been with the Rose, though its development has been more gradual, has been spread over a greater extent of time, and has consequently been less marked than in the above cases. We must remember that the Rose is not a flower recently risen into favour, deriving its popularity from cultivators of the present day alone: it is of the highest antiquity; and the ancients having cherished it so much, we may presume they would bestow some pains on its cultivation. It is not then, I think, surprising, when we consider the length of time the Rose has been under cultivation, and how freely the numerous species of which it is composed intermix,-it is not, I say, surprising, that the varieties are removed to a greater distance from the species than in either of the above-mentioned flowers. The Dahlias are the offspring of a single species; the Heartsease arose from two ; but the Roses of our day claim no less than twenty species as their progenitors. Should we not expect, then, from a larger surface on which to build, and a greater quantity and choice of materials, added to which time almost unlimited, a superstructure to arise more grand, more varied, more perfect?

In grouping the varieties, I have endeavoured not to increase more than necessary the number of groups into which, on the authority of Rose cultivators, the Rose at present stands divided. It were easy to effect a different arrangement, and perhaps a better one; but it is questionable whether the improvement would be sufficient to compensate for the confusion that must necessarily arise from such a step. In one or two instances only have I therefore formed fresh groups; and where I have thought varieties to belong to other groups than those in which some cultivators place them, they will be removed to what appears to me a more correct position. To prevent confusion arising from this change, the names will be retained in their accustomed places, the reader being referred to the other groups for their description.

It was conceived that the Hybrid Perpetual Roses differed too widely to remain grouped as heretofore; witness, Clémentine Duval, Gloire de Rosomène, Louis Buonaparte, and Eliza Balcombe, being placed together. The original group of Hybrid Perpetuals will be now divided into four, of which the varieties just mentioned may be considered the types. There are one or two other like cases which will appear hereafter.

It is thought desirable, before proceeding further, to explain certain terms which it is found necessary to use in describing the varieties; and the first which present themselves are those relating to the size of the flowers. They are five, namely :


There are also five terms used expressive of the degree of fulness; Single, Semi-double, Double, Very Double, and Full.

The Single are such as possess but one row of petals; example, the Single Austrian Rose.

The Semi-double have from two to five rows of petals; examples, Fabvier (Chinese), Gloire de Rosomène (Rose de Rosomène).

The Double have more than five rows of petals, yet usually shew the stamens in the centre of the flower; examples, Augustine Lelieur (Bourbon), Luxembourg (Moss).

The Very Double have a sufficient number of petals to hide the central stamens; examples, Fulgens (Hybrid Chinese), Madame Nerard (Bourbon).

The Full have the petals placed closely together; examples, Common Moss, Beauty of Billiard (Hybrid Chinese), Aubernon (Hybrid Perpetual), Acidalie (Bourbon), Lemarque (Noisette), Bougère (Tea scented).

The flowers of some varieties vary a little as to fulness.
In reference to the form of the flowers, we have the terms, globular, cupped, compact, and expanded.

The term globular is applied to such varieties as assume that form, in which the outer petals encircle the flower, the latter remaining closed, or almost closed at the top, till nearly full-blown: thus the flower, in its early stage, is a perfect globe. Examples of this term ; the Cabbage Rose (Provence), Globe White Hip (Hybrid French), General Allard (Hybrid Chinese), Great Western (Hybrid Bourbon), Sophie de Marçilly (Alba), Aricie (Hybrid Perpetual), Eliza Sauvage and Princesse Maric (Tea scented). It is worthy of remark, that Roses of this form usually remain perfect for a longer period than others: I have kept globularshapel Roses in good preservation for a week or ten days after being cut off the plant.

The term cupped is applied in cases where the outer petals of the flower stand erect, or are slightly incurved, the petals within being in general of smaller size than the outer ones, the flower thus being a little hollow in the centre like a cup. Examples of this term; Madame Hardy (Damask), Latour d'Auvergne (French), Brennus (Hybrid Chinese), Charles Duval and Coupe d'Hébé (Hybrid Bourbon) Persian Yellow (Austrian), Crimson Perpetual, Bouquet de Flore (Bourbon).

The term compact is applied to those varieties whose petals are stiff and upright, the centre of the flower being almost level with the circumference, usually rising above it, rather than being depressed. Examples of this term; De Meaux or Pompon (Moss), Beauté Vive, Fanny Bias, Boula de Nanteuil, Buonaparte, and Grain d'Or (French), Flon or La Mienne (Damask Perpetual).

The expanded differ from the compact in this respect; the outer petals, instead of standing erect, lie almost horizontal, usually turning back upon the flowerstalks in the last stage of the flower. Examples; 'Eblouissante de Laqueue, Fleur d'Amour, Rénoncule ponctué, and many others among the French Roses, 'Eclatante (Moss), D'Esquermes (Damask Perpetual), Lane (Hybrid Perpetual).

The words good, fine, perfect, which follow some of the above-named terms, are used only where the form is particularly elegant.

These are the terms which I have thought it expedient to make use of, to convey a correct idea of the size, form, and fullness of the different varieties of the Rose.

With regard to the form of a flower, it may be remarked, that it often varies as the flower passes through the different stages of its existence. Thus, a Rose which is cupped when half-blown, may become compact when full-blown; and a Rose that is compact in the former stage, may become expanded in the latter. And the same with regard to colour. A Rose may be pink or rose-coloured when first opening to the sun, and fade to blush ere it decay. Now with regard to form, as it would be difficult in all cases to record such peculiarities, $I$ have contented myseif with seeking out the most perfect slage of the flower, and noting the form of such. As to colour, where this changes, it will be found noticed in the description.

The habit of the plant is the next character which presents itself. The terms used here are, branching, erect, dwarf, and pendulous.

By branching, I intend to point out the varieties whose shoots have a somewhat lateral tendency of growth, branching away from the centre of the plant. Example; most of the Hybrids of the Chinese.

Erect is applied to those whose shoots rise perpendicular, or nearly so. Example; most of the Hybrid French.

Drarf is applied to varieties of humble growth. Example; the Miniature Provence or Pompon, and the Fairy Rose.

Pendulous is used to point out such as are of a pendulous or drooping habit. Examples; the Ayrshire and Sempervirens.

There are four terms used illustrative of the rate of growth; vigorous, robust, moderate, and small.

Vigorous is used to point out such varieties as form long shoots. Example; Madame Hardy (Damask), Fulgens (Hybrid Chinese.)

Robust alludes to those which form very stout shoots of less length than 'Vigorous.' Example ; Great Western (Hybrid Bourbon), Glory of France (French).

Moderate alludes to those which are of moderate growth: such usually form neat and compact bushes, or heads when on stems. Such are most of the French Roses.

Small is applied where any variety is of small or delicate growth.
To know the rate of growth of a plant is of the highest importance in the selection of varieties. How otherwise can they be properly adapted for particular purposes? how else arranged correctly in Rose clumps, or in the formation of a

Rosarium? One cannot always judge correctly of the actual rate of growth by a young plant: its vigour may be extraordinary, when the variety is in reality only a moderate grower. Hence it frequently happens that we find Roses in clumps, and elsewhere, badly placed, the guiding-line when planting having been the rate of growth of the young plants; and thus a moderate grower fills a position suited only for a robust or vigorous one, and vice versî.

It is the frequent meeting with cases such as these that has induced me to attach the rate of growth to the varieties, as far as it was practicable to do so. As this feature in description will be new to those who have not seen the Descriptive Catalogues of the Collection here, it may be well to give a table of the average height of the varieties of the diffcrent groups intended to be expressed by each term. The terms vigorous, robust, moderate, and dwarf, are applied to certain kinds, viewed in comparison with others of the same group: thus, a growth of two to three fret would entitle a Provence Rose to the appellation of rigorous, whereas a growth of eight to ten feet would be required to justify the application of the same term to the Hybrid Chinese; because the latter are, as a whole, more vigorous than the Provence Roses.

The following Table is drawn up in reference to their growth in these nurseries, the soil of which is an alluvial loam. However they may differ in extent of growth, in other soils, I imagine most groups will remain comparatively the same.


| Class II.-AUTUMNAL ROSES. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| grours. | vigorous. | nobust. | moderate. | arf. |
| 22. The Macartney Rose | 6 to 8 ft . |  |  |  |
| 23. The Microphylla Rose. |  |  | 3 ft . |  |
| 24 . The Four Seasons . |  |  | $1 \frac{1}{1}$ to 2 ft . |  |
| 25. The Rose de 'Trianon | 2 to 3 ft . |  | $1 \frac{1}{2}$ to 2 ft . |  |
| 26. The Damask Perpetual | 2 ft . |  | 1 to $1 \frac{1}{2} \mathrm{ft}$. | 1 ft . |
| 27. The Hybrid Perpetual . | 3 to 4 ft . | 2 to 3 ft . | $1 \frac{1}{2}$ to 29 ft . | 1 ft . |
| 28. The Bourbon Perpetual | . . . | . . . | 2 ft . | 1 ft . |
| 29. The Rose de Rosomène | 6 to 8 ft . |  | 2 to 3 ft . | 1 ft . |
| 30. The Perpetual Scotch |  |  | 2 to 3 ft . |  |
| 31. The Perpetual Moss | . . . | 2 to 3 ft . | $1 \frac{1}{2}$ to 2 ft . |  |
| 32. The Crimson Chinese . | 3 ft . | . . . | 2 ft . | 1 ft . |
| 33. The Chinese, or Monthly . | 3 to 5 ft . | . . . | 2 ft | 1 ft . |
| 34. The Fairy Rose . |  |  |  | $1 \mathrm{t} 01 \frac{1}{2} \mathrm{ft}$ |
| 35. The Tea scented. | 3 ft . |  | $1 \frac{1}{2}$ to 2 ft . | 1 ft . |
| 36. The Bourbon Rose | 6 ft . | 4 to 6 ft . | 2 to 3 ft . | 1 ft . |
| 37. The Musk Rose | 8 to 10 ft . |  |  |  |
| 38. The Noisette Rose | 8 to 10 ft . | 4 to 6 ft . | 2 to 3 ft . | 1 to 2 ft . |

In the above Table I have avoided the maximum and minimum of height, and endeavoured to secure the mean. In poor soils I doubt not they will sink below this, and in rich ones they may rise above it. Certainly the most vigorous kinds, which are usually grown as Pillar or Climbing Roses, may, by skilful pruning and training, be brought to exceed the heights given.

Much confusion has arisen from there being no acknowledged standard of reference for the names of particular forms of Rose-trees. Thus the terms low standard, half standard, and dwarf standard, are used synonymously by some. Before proceeding further, it may be well to intimate what is here intended by the use of certain names :

Weeping Roses are kinds of vigorous and pendulous growth, worked on stems of 4 feet or upwards.
Standard Roses are any kinds on stems of about. . . 3 feet.
Tall Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 feet to 5 feet.
Half Standards. . . . . . . . . . . . . . . . . . . . . . . . . . . . $1 \frac{1}{2}$ feet to $2 \frac{1}{2}$ feet.
Drarf Standards. . . . . . . . . . . . . . . . varying from 6 to 18 inches.
Dwarfs are budded or grafted close to the ground, and termed worked dnarfs; or are grown from cuttings or layers, and spoken of as on their own roots.
Climbing Roses are the most vigorous kinds selected from various groups.
Pillar Roses are analogous to the last; but the best forms of these are kinds of more erect habit, and less vigorous growth, than are usually chosen for Climbing Roses.
$P_{0}$ Roses are any of the above grown in pots.

# CLASS I.-SUMMER ROSES, 

BLOOMING IN MAY, JUNE, AND JULY.

## Group I.-THE ALPINE OR BOURSAULT ROSE.

The Boursault Roses are very distinct from all others. The shoots are long, flexible, very smooth, in some instances entirely free from thorns; the one side often of a pale green, the other of a reddish tinge: the eyes are formed further apart than in common. The flowers are produced in large clusters. By these features are the varieties of this group readily distinguished. The Boursault Roses, though of vigorous growth, are not of a sufficiently pendulous habit to make perfect " Weeping Roses" without assistance from the cultivator. When desired to be formed into such, the branches should be drawn to the ground with tar-twine, or twisted bast; when the immense trusses of flowers they bring forth give to the tree an appearance truly gorgeous. One induccment to grow them in this manner is, that most Roses of a pendulous growth producing pale-coloured flowers, they introduce a charming variety among Weeping Roses; for the Boursault are mostly purple or crimson. Besides forming good Weeping Roses, they are fine grown either on pillars or on fences with a northernly aspect, a situation where few other kinds succeed well. It might be supposed that they are very hardy, growing naturally, as they do, on the Alps of Austria and Switzerland. And such is indeed the case: they will bloom well in situations where they scarcely obtain a gleam of sunshine. The popular name of the group "Boursault" is due to the first double Alpine Rose being so named in compliment to M. Boursault, a French cultivator. The Blush and the Crimson have been recommended by many as stocks for budding and grafting the Tea-scented Roses on. The Blush has been used here, but is not approved of : it is the worst of all stocks; and more disposed to canker than any other with which we are acquainted. The Crimson, which appears more suitable for the purpose, has not been tried extensively. I believe, however, for general use no stock can be found better than the Dogrose ; certainly none can be hardier.

For Pot Roses, however, there are others which, for one reason, seem to offer advantages: they produce a greater quantity of fibrous roots in a smaller compass than the Dog-rose; a point of importance when a plant is confined for space. Of such nature are the Boursaults and the Manettii Rose. But when a plant is not confined for space, when the roots can dive into the free earth in search of food, then I would prefer the Dog-rose to any other.

Boursault Roses should be well thinned out in pruning; but the shoots that are left for flowering should be shortened-in very little.

1. Amadis; flowers deep crimson purple, shaded more or less with vivid crim(Crimson) son, large and semi-double; form, cupped. Habit, erect; growth, vigorous; the young wood of a whitish green. A showy rose; one of the best of the group.
2. Blush Boursault ; flowers blush, their centre deep flesh, very large and very (Calypso) double; form, globular. Habit, pendulous; growth, vigorous, the plant (De l'Isle) holding its leaves longer than others of the group. Exceedingly rich (Florida) as a climbing Rose when planted in a good aspect, which it requires (White) to develop its flowers in full beauty. Apparently a hybrid between the Boursault and Chinese, possessing the climbing habit of the former group.
Calypso; see Blush Boursault.
Crimson; see Amadis.
De L'Isle; see Blush Boursault.
3. Drummond's Thornless; flowers rosy carmine when first opening, changing to pink; large and semi-donble; form, cupped. Habit, pendulous; growth, vigorous.
4. Elegans; flowers rosy crimson, sometimes purplish; often streaked with white; produced in very large clusters ; of medium size, semi-double; form, expanded. Habit, erect; growth, vigorous. A very showy pillar Rose. Continues a long time in flower, owing to the large trusses it produces, bearing buds in different stages of forwardness.
Florida; see Blush Boursault.
5. Gracilis ; flowers lively cherry, shaded with lilac blush, of medium size, full ; form, cupped, perfect. Habit, branching ; growth, vigorous. Prickles singularly large and long; foliage of a rich dark green, the variety evidently being a hybrid.
6. Inermis; flowers rosy pink, changing to pale pink soon after expanding; large and double; form, expanded. Habit, branching ; growth, vigorous; shoots, spineless.
7. Old or Red Boursault ; flowers bright cherry when first opening, gradually becoming paler ; large and semi-double; form, expanded. Habit, pendulous; growth, vigorous. A showy pillar or weeping Rose. The original Boursault Rose.
White Boursault; see Blush Boursault.

## ROSASUKPETEEA.

Grour II.-THE DOUBLE YELLOW ROSE.
Turs Rose may be distinguished by its flat glaucous leaves, usually of a pale or yellowish green. The vigorous shoots grow erect, the weaker ones rather twisted, and both are covered with long thin prickles.

It is generally allowed to be a native of Persia, first introduced to England (Div. II.)
from Constantinople. It is notorious for refusing to expand its blossoms, and has been the subject of much discussion. It was apparently unfavourably known two hundred years ago. John Parkinson, who wrote on Gardening early in the seventeenth century, says of it: "The flower is so thick and double, that very often it breaketh out on one side or another, but few of them abiding whole and fair in our country." As he does not give us any means of remedying the defect, we may presume that that was a puzzle to him which still remains so to us. At least, if we can advance a reasonable supposition as to the cause, we have not yet been able to provide a remedy. The methods of treatment and aspects which different writers have recommended, to induce this capricious plant to flower, are very various; but all seems of little use. Different aspects have been chosen, and different modes of culture followed; but what has succeeded in the hands of one individual, has, in like situations and circumstances, failed in the hands of another.

In the first volume of the Gardener's Chronicle (1841), the Editor invites his correspondents to a discussion on this plant; and, at p. 811, winds up the subject with a leading article. It is there remarked :-
"In what aspect it most flourishes may perhaps be gathered from this, that in ten cases success is connected with an east aspect, in eight with a north, in seven with a west, in six with full exposure all round, and in only one case is the south spoken of: this, however, is by W. Leveson Gower, Esq., whose Roses at Titsey, near Godstone, are well known for their beauty; and this gentleman finds them do better there than on a north or west wall.
"Nothing can be more conflicting than the evidence about soil. The majority of cases of success occur in light land, gravelly, sandy, loamy, and even marly.
"But, on the other hand, we have some instances of success in the stiffest land. Mr. Bowers, of Lalcham, grew it in Northamptonshire, in cold clay, 20 inches deep; an anonymous correspondent asserts that he has had it in the greatest perfection in the blue clay of Essex, and that he has never known it to fail when it was put into clay in a north aspect; and another writer testifies to success in strong, wet, undrained clay, in the same county."

The Double Yellow Rose certainly is very beautiful when perfect; and could any system of cultivation be divulged, which, followed, would ensure a successful issue, I should consider pages well occupied in doing so. But although my anticipations are not thus sanguine, the subject yet deserves a little consideration.

Some have said, Grow it on its own roots; others, Bud it on the Dog-Rose; and others, again, Bud it on the Chinese. At East Lodge, on Enfield Chase, the seat of the late Hon. Mrs. Elphinstone, there was a plant on its own roots, growing at a distance of ahout ten yards from a wall with a north-eastern aspect. It here produced its beautiful yellow blossoms abundantly, covering the bush on all sides, during the flowering season, for several successive years. This situation is high and exposed: the soil is naturally a heavy loam, but was somewhat lightened and enriched by the frequent addition of stable manure.

In certain districts of Suffolk, in Sussex, and in the Isle of Wight, it is said to bloom well generally.

I am informed by a friend, a great Rose amateur, that at Ballater, in Scotland, both this and the Austrian Rose flower beautifully. He has seen them there growing most luxuriantly, in a very exposed situation, covering a wall of great height and extent, laden with perfect flowers.

Mr. Cunningham of Edinburgh informs me that there is a plant on a south wall in that neighbourhood which flowers to perfection every year. The main stem and branches are as large as those of a Pear-tree, and bushels of flowers might be gathered from them in the season.

In these Nurseries the plant to which allusion is made in the First Division of this work was grown on its own roots, trained to a west wall, where it flowered constantly and well. The soil in which it grew was originally a heavy loam ; but having been occupied as garden ground for a century or two, it presents more the appearance of black garden mould. The sub-soil is gravel.

In some parts of Italy perfect flowers are produced with so much certainty, that it is cultivated as a market-plant; and it is often met with in the markets in various parts of France.

I think one thing is tolerably clear: our climate generally is not suited for its cultivation; and this presents a difficulty not easily overcome. Locality is evidently of vast importance; and a locality with a pure dry atmosphere is preferable to any other. In dry, mild seasons it has flowered in its favourite haunts in England better than at other times; and then in places where, in less favourable seasons, it would not flower. I have never heard of its flowering near London, or in the immediate neighbourhood of any large manufacturing town. There we may plant it; but no one can say whether it will ever produce perfect blossoms or not. The fact of its doing so, is an anomaly-rather the exception than the rule. Notwithstanding this, its beauty, when perfect, tempts many to cultivate it: and let us consider the most reasonable means of obtaining success. I believe one point has been too much overlooked, both by cultivators and writers on this subject-the general health of the plant. Let the cultivator procure, in the first instance, a healthy and vigorous plant, and, if possible, keep it in a healthy condition. It must be borne in mind, however, that it is possible to produce an overgrowth : a moderate course is best. Do not tempt it to grow too exuberantly, nor suffer it to dwindle, producing shoots resembling weak straws. Half the plants which I have seen have been in this latter condition, unhealthy, debilitated, literally starved, and often swarming with insects. Can such be expected to develop perfect flowers? This state of things may answer (barring the insects), applied to some varieties, whose flowers are too full to expand under ordinary circumstances: indeed it does answer; but it will not do so in this instance. I would advise all who desire to cultivate the Double Yellow Rose to plant it on a border with an eastern or western aspect; not training it to a wall, but growing it as a round bush. Let the locality be airy, the soil rather heavy, and tolerably rich. So soon as the buds break, set a watch over the plant to keep it free from
the insects which almost invariably infest it, and which may be done by brushing them off into the hand, or syringing with tobacco-water. When the flower-buds are forming, have an eye to their growth; if weakly, or seeming likely to become so, water the plant twice or thrice a week with a solution of guano, using about two ounces to a gallon of pond or rain-water. As soon as the flowering season is past, remove some of the shoots, if they have been produced in such number as to crowd each other, when those suffered to remain will become thoroughly matured by fuller exposure to sun and air. By this procedure one grand point is gained-the formation of wood in the most favourable condition for the production of perfect flowers. In March the plant may be pruned, but very little: on the weak shoots, five or six eyes should be left; on the strong ones, from six to nine eyes.

It is only by the recent introduction of the Persian Yellow Rose that we have become, in some measure, indifferent to the possession of the old double Yellow; the former, though not of equal beauty, being yet a free and tolerably certain bloomer.

There is but one other variety in this group that has been introduced to British gardens-Sulphurea Minor, or Pompon Jaune. It is of dwarf habit, with smaller flowers, which have, I believe, never been perfected in this country.

1. Double Yellow, or Sulphurea; flowers of the deepest and brightest yellow found among Roses, very large and full; rarely expand well ; form, globular. Habit, branching; growth, moderate, or sometimes vigorous.
2. Minor, or Pompon Jaune; flowers bright yellow, small, and double; form, globular. Habit, dwarf.

## ROSA SPINOSISSIME.

## Group III. - THE SCOTCH ROSE.

Well has this Rose been named "Spinosissima," for it is indeed the most spiny of all Roses, and the spines are as sharp as they are plentiful. They are far more so than they seem to be; and a word of caution here may save the tyro an unpleasant greeting. The Scotch Rose is a native species, growing plentifully in many parts of Britain. I have somewhere read or heard it stated, that the first double Scotch Roses were raised from seed by Mr. Brown, a Nurseryman at Perth. It is from that part many of our finest varieties have issued, and varicties have been exceedingly numerous; for they seed so abundantly, and the seed vegetates so freely, that there is no difficulty in raising seedlings. But with English amateurs they are not popular; why, I do not know, except it arise from the short duration of their flowers.

They all form compact bushes, being usually grown as such, for they are not well adapted for standards. They flower abundantly, and early in the season.

The flowers are small and globular'; many of them, as they hang on the bush, looking like little balls. I recollect being much struck with a stand of these Roses brought to one of the Horticultural exhibitions in May. The season was an early and a genial one, and they were produced in great beauty.

Scotch Roses are in character planted as a hedge round a Rosarium, where such may be required : a bank of Scotch Roses I should also conceive to produce a good effect. They like a pure air-and indeed what Roses do not?--but will grow almost anywhere.*

When plants of the Scotch Rose become established in the soil, the stems push laterally under ground, often rising to the surface at a considerable distance from the plant. These are called suckers, and are separated from the mother plant to form new plants; and thus is the Scotch Rose propagated. It is not easy to confound this with any other group, the spines are so thickly set on the stems. The growth is dwarf. The flowers are mostly small, double, and globular in form, possessed of a peculiarly grateful fragrance. The plants resemble each other so nearly in every respect, that it seems only necessary to affix the colours.

There are some hybrids of this group well worthy of cultivation : the Perpetual Scotch and Stanwell, which bloom both in summer and autumn, are the most remarkable.

1. Acasto; flowers blush purple.
2. Adelaide; flowers red, large.
3. Aimable 'Etrangère; (Hybrid) flowers pure white.
4. Aimable Rosette; flowers red or rose.
5. Alemina ; flowers light purple, striped.
6. Ambuchelet; flowers rosy lilac.
7. Apollo ; flowers purplish red.
8. Argo ; flowers light red.
9. Arterresea ; flowers blush purple marbled.
10. Æsor ; flowers red and purple striped.
11. Athol ; flowers blush.
12. Bellona ; flowers light red.
13. Blanda; flowers pale red marbled.
14. Calista; flowers white.
15. Countess of Breadalbane; flowers rosy purple.
16. Countess of Glasgow; flowers deep purple.
17. Countess of Kinnoul; flowers purple.
18. Countess of Strathallan ; see Viscountess of Strathallan.
19. Cupid ; flowers purple.

[^14](Div. II.)
20. Daphne; flowers pink.
21. Dominie Samson; flowers marbledblusin.
22. Duchess of Bedford; flowers rose-colour.
23. Erebus; flowers dark red.
24. Eugenius; flowers light red or rose.
25. Europa; flowers light rose-colour.
26. Flora; flowers crimson, large.
27. Gil Blas ; flowers light red.
28. Guy Mannering ; flowers blush, large.
29. Hannibal ; flowers purplish crimson.
30. Hardil (Hybrid); flowers white edged with rose, small and double; form, cupped. Growth, moderate.
31. Iris ; flowers white.
32. Ivanhoe; flowers pinkish blush.
33. James's Purple; flowers purple.
34. Josephus; flowers light yellow.
35. Juno ; flowers red marbled.
36. Jupiter; flowers marbled purple.
37. King of Scots; flowers rosy purple.
38. La Cenamone; (Hybrid) flowers pure white, large and very sweet; form, compact; not globular, as in others of this group.
39. La Niège; flowers pure white.
40. Lady Baillie; flowers pale straw-colour.
41. Lady Banks; flowers blush red.
42. Lady Finch Hatton; flowers crimson, semi-double.
43. Lady Rollo; flowers lilac.
44. Manette; (Hybrid) flowers deep pink, changing to rosy lilac, of medium size, full ; form, compact. Growth, moderate.
45. Marchioness of Lansdowne; flowers sulphur-colour.
46. Mary Stuart ; flowers yellow.
47. Meg Merrilies ; flowers red.
48. Midas; flowers dark red.
49. Mrs. Craigie; flowers blush.
50. Mrs. Hamilton; flowers blush purple.
51. Mrs. Hax ; flowers straw-colour.
52. Mrs. M. Stirling ; flowers dark velvety red, fine.
53. Mozart ; flowers blush.
54. Neptune; flowers fine dark red.
55. Painted Ladx; (Hybrid) flowers white, sometimes striped with red; large; the marking inconstant.
56. Palestine; flowers blush.
57. Paris; flowers dark red or rose.
58. Plato; flowers purplish red.
59. Princess ; flowers blush white.
60. Princess Elizabetie ; flowers bright pink.
61. Proserpine; flowers pale pink.
62. Purpurea; flowers purplish red.
63. Pythigoras; flowers marbled red or rose.
64. Queen of $\mathrm{M}_{\mathrm{Ay}}$; flowers bright pink.
65. Saturnia ; flowers white.
66. Saxonia ; flowers pale rose.
67. Sergia; flowers purple.
68. Shakspeare; flowers deep red.
69. Socrates; flowers striped blush.
70. Sulphurea; flowers straw-coloured.
71. True Yellow; (Hybrid) flowers pale yellow when first expanding, dying off creamy white.
72. Venus; flowers dark rose.
73. Victoria; (Hybrid) flowers dark red and rose shaded, double; form expanded. Growth, moderate.
74. Viscountess of Strathallan ; flowers blush.
75. Waverley; flowers red.
76. William tie IV.; flowers white, large.

## ROSA DATIASCENA.

Group IV.-THE DAMASK ROSE.
In common parlance, all dark Roses are termed Damask, probably from the first dark varieties having borne this name. But this is erroneous. There are dark Roses belonging to almost every group; and there are Damask Roses of various colours: some are white. The Damask are readily distinguished from others by a robustness of growth, in conjunction with rough, spinous shoots, and downy, coriaceous leaves of a light green colour. Owing to this latter feature, they present a striking contrast when introduced among other groups. The flowers are mostly of fair size; some are large, and all are showy. Belonging here are some very pretty pink Roses, with a delicate tint of salmon pervading the flowers, rendering them alike distinct and beautiful.

The Damask Rose is allowed to be of great antiquity. Some suppose it to be of this Virgil speaks in the Georgics and elsewhere. It is generally believed that it was first introduced from Syria, and brought to England in 1573. But Johnson, in "The History of Gardening," says, "The learned Linacre, who died in 1524, first introduced the Damask Rose from Italy." Who will fight the battle? We must not pause to do so. Wherever the truth may lie, it is evident that it has been cultivated in England for a great length of time; and it affords a singularly striking example of the treasures Nature's plants are capable of yielding
beneath the hand of the industrious cultivator; of the power given unto man to improve by his labour the races of the vegetable world. For two hundred years this Rose underwent but little change; but modern Rose-growers have improved and varied it to such a degree, that the favourites of so long standing are threatened with oblivion. They exist, it is true, but are rarely met with.

It would seem that the Damask Rose was known to the English as existing in foreign countries before they cultivated it in their own. We have previously stated that we believe this to be the Red Rose of the Lancastrians.

The Damask Roses are very hardy, thriving well either as standards or dwarfs. They do not form compact-headed trees, but their growth is graceful; rather more rambling than that of the French Roses. They flower abundantly: in some instances the flowers rest among the leaves and branches which surround them; in others they are elevated above. It is chiefly from the petals of this species, in common with those of the Provence (R. Centifolia), that Rose-water is distilled. Acres of Roses are grown in some parts of the country expressly for the purpose.

1. Admirable blanc bordé de rouge; flowers white, sometimes a little greenish, usually edged with rose; of medium size, full; not expanding well at all times. Habit, branching; growth, vigorous.
2. Aimée Lientot; flowers bright rose, large and full.
3. Aline; flowers white, inclining to flesh-colour; of medium size, full. Introduced in 1846.
4. Angele; flowers light carmine, very large and very double; of compact form.
5. Antigone; flowers of a vivid rose-colour, large and double.
6. Arlinde; flowers rosy blush, large, and full; form, cupped, delicately beantiful. Habit, erect; growth, moderate.
7. Bachelier ; flowers vivid salmon pink ; of medium size, full; form, compact, (Bachelor Beck) perfect. Habit, branching. Growth, moderate. A beautiful Rose. 8. Bella Donna; flowers soft lilac pink, large and double; form, expanded. Habit, branching; growth, moderate.
8. Belle d’Autiel; flowers rosy lilac, large and full; form, globular. Habit, branching; growth, robust. The leaflets are very short and round, forming a fine foliage.
9. Belle Maconvaise; flowers pale pink, shaded, large and double; form, compact.
10. Blanchette; flowers white; of medium size, full. Introduced in 1845.
11. Blanche Davilliers; flowers creamy white; of medium size, full; form, expanded. Habit, erect; growth, moderate. A very abundant flowering Rose.
12. Blanche Hocédé; flowers white; of medium size, double.
13. Bouvet; flowers brilliant purplish rose; of medium size, full; form, expanded. Habit, erect; growth, vigorous. A very good Rose.
14. Calypso ; flowers rosy blush, paler towards their circumference, very large
and full; form, cupped. Habit, branching; growth, robust. One of the largest of Roses, and one of the coarsest.
15. Candide; flowers rosy lilac; of medium size, full.
16. Cardinal d'Amboise; flowers lively pink, paler towards their circumference; of medium size, full ; form, expanded. Habit, branching; growth, moderate. A good and distinct Rose.
17. Cels À fleurs pleines; flowers blush, very large and full; coarse.
18. Césonie; flowers dark rose, large and full; form, compact.
19. Chateaubriand; flowers reddish purple; of medium size, full; form, cupped.
20. Clarisse Harlowe; flowers pale flesh; of medium size, full; form, cupped.
21. Colonel Bonnaire; flowers reddish crimson, large and very double; form, compact.
22. Coralie ; flowers soft blush, bright flesh in their centre; of medium size, full; form, cupped. Habit, pendulous; growth, moderate. Closely resembles Déeseflore.
23. Déeseflore; flowers almost white, their centre rosy pink; of medium or small size, full; form, expanded. Habit, branching; growth, moderate. An abundant bloomer: the tree very beautiful when in full bloom.
24. Délices de Flore; flowers rose tinged with flesh colour, bright and pretty ; of medium size, full.
25. Duke of Cambridge; flowers deep purplish rose, large and full; form, compact, perfect. Foliage of a dark green, the young leaves edged with reddish brown. Habit, branching; growth, robust.
Ebene; see Damask Perpetuals, Group XXVIII.
26. Eudoxie; flowers vivid rose, of a rosy lilac tint towards their circumference, large and double ; form, cupped. Habit, branching; growth, vigorous; the shoots densely covered with spines. A very showy Rose.
27. Elise d’Henning; flowers pure "white; of medium size, full; form, cupped, perfect. Habit, branching; growth, moderate, with rather slender wood.
28. Elise Volart ; flowers crimson purple, of medium size; form, cupped.
29. Elvire; flowers rosy pink, their centre often yellowish; of medium size, full; form, compact. Habit, erect; growth, moderate. Ferox; see La Féroce.
30. François Jonglour; flowers rose-coloured ; of medium size, full.
31. Gabrielle d'Estrées; flowers white, of a roseate tint towards their circum-
ference; of medium size, full. Introduced in 1845. Raised at Angers.
32. Glycìre; flowers light vivid rose; of medium size, full.

Grand Edouard; see La Soyeuse.
Helvetius ; see Group VIII. The French Rose.
34. Impératrice de France; flowers pink, veined with deep rose, and shaded with blush ; of medium size, very double; form, expanded. Habit, branching; growth, robust; shoots, very spinous; foliage, large and fine.
35. Isaline; flowers soft lilac blush, beautifully shaded with salmon pink, sometimes altogether of a rosy pink or rosy salmon colour ; of medium size, full; form, cupped, perfect. Habit, branching; growth, moderate.
36. Ismène; flowers delicate flesh-colour, large and full. Introduced in 1845.
37. La Chérie ; flowers flesh-colour, their centre salmon pink; form, cupped.
38. La Constance; flowers bright rose, their circumference blush; very large (Pceoniflora) and full; form, expanded: resembles a Pæony; hence called by some, Rosa Pœoniflora. Habit, branching; growth, robust. Very showy, but coarse.
39. La Délicatesse; flowers white, tinted with rose; of medium size, full; form, cupped.
40. La Féroce; flowers rose, very large and full; branches, close-set with (Ferox) spines. Habit, erect; growth, robust.
41. Lady Campbell; flowers French white, large and very double; of globular form.
42. Lady Fitzgerald; flowers rich rosy crimson; of medium size, full; form, cupped. A good seed-bearer. Habit, branching; growth, moderate. Showy.
43. La Gracieuse; flowers deep pink, inclining to blush soon after expanding ; of medium size, full; form, compact. Habit, branching; growth, moderate. Blooms occasionally in the autumn ; wherefore some class it as a Damask Perpetual.
44. La Mèe de Famille; flowers light rose; of medium size, full; form, compact.
45. La Négresse; flowers dark clouded purple; of medium size, full; form, expanded. Habit, branching; growth, small. A neat dark Rose, and the darkest of the Damask. Raised at Angers. Introduced in 1842.
46. La Soyeuse ; flowers rosy lilac, very lively in colour in bud, large and full ; (Grand Edouard) form, cupped. Habit, branching; growth, moderate.
47. La Tendresse ; flowers rose colour.
48. Lavalette; flowers rose; of medium size, full.
49. La Ville de Bruxelles; flowers light vivid rose, the colour gradually receding from their centre, leaving the edges of a rosy blush ; large and full; form, expanded. Habit, branching; growth, vigorous. A beautiful Rose.
50. Leda ; flowers blush, tinged with flesh, the petals often margined with lake;
(Painted Damask) of medium size, full; form, expanded. Habit, branching;
growth, robust; leaves, broad, short, and handsome. A beautiful Rose when the lake margin is perfect.
51. Lisbeth ; flowers delicate blush, pretty ; of medium size, full; form, cupped. Habit, branching; growth, moderate.
52. Louis tie Sixteenth; flowers purple and crimson intermixed, their centre vivid crimson; of medium size, full; form, compact. Habit, erect; growth, small. Foliage of a beautiful light green. A showy Rose, but not a very free grower.
53. Madame de Maintenon ; flowers almost white, their centre rosy pink, of medium size, full. Closely resembles "Déeseflore," if not identical with it.
54. Madame Deshoullè̀res; flowers even rosy crimson; of medium size, full; form, compact. Habit, erect; growth, moderate. A showy Rose, partaking somewhat of the characters of Group VIII., The French Rose.
55. Madame de Tressan ; flowers pale rose; of medium size, full.
56. Madame Feburier; flowers rose, large and full; form, cupped. Flowers occasionally in the autumn, wherefore some class it as a Damask Perpetual. Habit, erect; growth, robust.
57. Madame Hardy; flowers pure white, occasionally delicately tinged with flesh, large and full; form, cupped. Habit, erect ; growth vigorous, frequently producing the flowers in large clusters. A beautiful Rose. Raised at the Jardin du Luxembourg in 1832.
58. Madame Lambert; flowers bright red, very large and full.
59. Madame Zöetmans; flowers delicate flesh, changing to white, glossy, large and full; form, cupped. Habit, branching; growth, vigorous. A beautiful Rose, well worthy of a place in the most limited collection.
60. Madame $\mathrm{S}_{\text {tolz }}$; flowers pale straw ; form, cupped.

Malvina; see Group XIII., R. Alba.
61. Marcus Aurelius ; flowers rosy red, spotted, large and full; form compact. Introduced in 1845.
Marquess of Lotirian ; see Group VIII., The French Rose.
62. Mohelida; flowers rosy pink bespattered with small white spots, small and double; form, globular. Habit, compact ; growth, small.
Monstreuse ; see Group XXVIII., Damask Perpetual, "La Magnanime."
63. Nérérs; flowers of the most delicate rose colour, of medium size, full. Introduced in 1844.
64. Nómi ; flowers of a dark rose colour, spotted in a slight degree, large and full. Introduced in 1845.
65. Odeska ; flowers pale blush, large and double; form, cupped.
66. Olympe; flowers purplish crimson; of medium size, full. Introduced in 1843.

Cillet parfait ; see Group VIII., The French Rose.
Painted Damask; see Leda.
67. Penelope; flowers purplish red, large and very double. Growth, robust.
68. Philodamie; flowers purplish rose, spotted, large and full.
69. Phebus ; flowers lilac blush, their centre rosy crimson, large and full; form, compact. Habit, erect; growth, moderate, producing short thick shoots. Foliage fine.
70. Placidie; flowers delicate rose, large and very double; form, compact. Pgoniflora; see La Constance.
71. Pompon Toussaint ; flowers even rosy crimson, changing to rosy lilac before falling, small and full; form, compact. Habit, branching; growth, robust. A pretty little Rose.
72. Pope; flowers crimson and purple shaded, their centre sometimes fiery, very large and full; form, compact. Habit, branching; growth, moderate. A free bloomer, very dark in colour, and altogether a superb Rose.
73. Portland pourpre; flowers light purplish crimson, large and double; form, cupped. A distinct Rose.
74. Princesse Amélie; flowers dark glossy rose, paler towards their circumference, large and double, sometimes very double; form, globular. Habit, branching; growth, robust.
7.5. Pulcherie; flowers pure white; of medium size, very double; form, cupped. Habit, branching; growth, vigorous.
76. Rose des Poétes ; flowers light rose, large and full.
77. Rose Frayes; flowers French white, large and very double; form, compact.
78. Rose Verreux ; flowers red, tinged with lilac, paler towards their circumference; of medium size, full ; form, globular:
79. Sélima ; flowers rosy lilac, large and full; form, globular, perfect. Habit, branching; growth, moderate. The leaves singularly long and tapering.
80. Semiramis; flowers fawn in their centre, shaded with glossy pink; their circumference of a pinky flesh, to which colour the centres change soon after expansion; large and very double ; form, expanded. Habit, pendulous; growth, moderate. A distinct and beautiful Rose. Introduced in 1841.
Suzanne; see Group VIII., The French Rose.
81. Sylita; flowers purplish red, large and full.
82. Tomenteux ; flowers rose-colour, striped; of medium size, double. Blooms occasionally in the autumn.
83. Triomphe de Rouen ; flowers soft even pink, the tops of the petals slightly turning over soon after expansion, large and full; form, expanded. Habit, branching; growth, robust. A beautiful Rose, possessing some of the characters of the Hybrid Chinese (Group X.)
84. Véturie; flowers rose-colour, of medium size, full; the wood and foliage presenting a very singular appearance. Introduced in 1842.
Volumineuse ; see Group XXVIII., Damask Perpetual.
85. Warmatafi ; flowers purplish crimson, of medium size, very double; form, cupped, perfect. Occasionally flowers in the autumn.
86. York and Lancaster; flowers white, striped with pale red, large and full.
87. Zara (Hooker's) ; flowers soft glossy pink, blush towards their circumference, of medium size, and double; of a most beautiful colour in bud; form, globular. Habit, branching; growth, moderate. Raised at Brenchley in Kent.

## ROSA CTITTEOEXA.

## Group V.-THE PROVENCE ROSE, WITH ITS HYBRIDS.

Who has not heard of the Provence, or, as it is more frequently called, the Cabbage Rose? There are numerous varieties, though nature has not been so lavish with her stores here-has not answered so fully to the strivings of art to improve this group-as in some other instances. Perhaps the old favourite was so perfect that it could not be surpassed. Be this as it may, the group has improved of late by the varying of the colours, if no individual variety has been raised to surpass the original.

The Provence Roses are deliciously fragrant; their habit is for the most part branching, or pendulous; and among them are some of the finest globular-shaped Roses grown.

The foliage is bold and handsome; the leaflets broad and wrinkled, in many instances obtuse, the edges deeply serrated. The prickles on the branches are very unequal ; some are fine and straight, others large at their base, and falcate. These points, with the drooping habit, and usually globular flowers, serve as marks by which we distinguish them.

They thrive well either as dwarfs or standards; but some varieties require the fostering care of the cultivator to tempt them to produce their flowers in full beauty. To ensure complete success, plant them in a soil made rich, and water them occasionally in spring with liquid manure. All, except the vigorous growers, which are in many instances hybrids, should be subjected to close pruning.

The hybrids are more robust in their nature, and do not need more than ordinary attention. They should be pruned moderately close. But it may be asked, what are the hybrids now spoken of? There is a group in the Rose Catalogues termed Hybrid Provence. Are these the Roses alluded to? We answer, some of them only. That group is remarkable for its heterogeneousness. I think it has hitherto been regarded as one in which any varieties differing from the mass of other groups might be classed; a sort of refuge for the destitute.

From that group we can draw varieties in which the characters of the Hybrid Chinese predominate: witness Alphonse Maille. There are also others there, (Div. II.)
which partake more intimately of the nature of the French Rose; and these form the greater part of the group usually termed Hybrid Provence. But there are still others resembling more closely the Provence, and these are what we mean by hybrids.

Those more closely allied to the Hybrid Chinese will be referrred to that group, and their hybridous nature will be there noticed. Those nearly allied to the French Rose will be retained in a group by themselves, under the name of "Hybrid French," instead of Provence or Hybrid Provence.

Though decidedly averse to changing the names of the groups, we think it necessary in this case, and that for two reasons. In the first place, there are two groups, possessed of distinct characters, known under the name of "Provence"; and, in the next place, the varieties of the one, which we intend to call "Hybrid French," more closely resemble the French Rose than the Provence. By this stroke, then, we do away with the confusion arising from two distinct groups, bearing the same name; and favour our design of bringing more closely together varieties possessed of like characters and habits.

1. Adéle de Senange (hybrid); flowers blush pink, sometimes marbled, of medium size, full; form, expanded; blooming abundantly, and in clusters. Habit, branching; growth, vigorous. Very pretty when about half blown.
2. Adéline (hybrid); flowers vivid rose, paler towards their circumference; of medium size, full; form, compact. Habit, branching, fine; growth, moderate, fine dark foliage. A showy Rose.
3. Adrienne de Cardoville; flowers rosy crimson, large and full; form, cupped, fine. Habit, branching ; growth, moderate. A good and distinct Rose. Raised in the neighbourhood of Paris. Introduced in 1845. Alain-Blanchard; see Group VIII., French.
Alphonse Maille; see Group X., Hybrid Chinese.
4. Anais Ségalas (hybrid) ; flowers rosy crimson, their circumference rosy lilac, large and full; form, expanded, perfect. Habit, branching; growth, moderate.
5. Anémone, Vibert (hybrid); flowers dark crimson rose, of medium size, full. Introduced in 1844.
6. Anémoneflora; flowers pale rose, of medium size, very double.
7. Belle Portugaise (hybrid); flowers purplish lilac, large and full; form, cupped. A fine Rose.
8. Bishop's Provence; flowers rose, large and full; shape, globular; leaves curious, placed very closely together on the branches. Habit, erect; growth, moderate.
9. Blusir Provence; flowers soft light pink, of medium size, double. Habit, branching; growth, moderate.
Bullata; see Monstrous. Caroline de Berri; see Foliacèe.
10. Celery-leaved; flowers rosc, of medium size, full; form, globular. Foliage very curious.
11. Christine de Pisan (hybrid); flowers rose, marbled with white, large, and very double; form, cupped. Introduced in 1840.
Clélie ; see Group IX., Hybrid French.
12. Common or Cabbage Rose; flowers rosy pink, their circumference changing paler soon after expansion; the tops of the petals sometimes slightly reflexing, large and full ; form, globular. Habit, branching; growth, vigorous.
13. Comtesse de la Roque (hybrid); flowers soft rosy dove, very large and full; form, expanded. Habit, branching; growth, moderate. A good and distinct Rose.
14. Comtesse Odouard (hybrid); flowers bright flesh-colour, very large and full.
15. Cristata; flowers rose pink, their circumference changing paler, often (Crested Moss) assuming a lilac tint, very large and full; form, globular. The flower-buds beautifully crested, the crest sometimes extending to the leaves. Habit, branching; growth, moderate. An extraordinary and beautiful Rose, first noticed growing on the walls of a convent near Berne, in Switzerland. Prune short; the more vigorous the growth, the more is the crest developed. (See Plate I.)
16. Curled Provence; flowers pink, large, and very double; form, globular.
17. Crassus Capitata; flowers blush pink, large and very double; form, globular.
18. De Nancy ; flowers glossy pink, large, and very double; form, expanded. Habit, branching; growth, robust. A very showy Rose. A good seed-bearer.
19. Des Peintres; resembles the Common or Cabbage Rose.
20. Délices de Flandre (hybrid); flowers delicate light pink, large and double; form, cupped. Habit, branching; growth, moderate; foliage of a pale green. A very pretty Rose.
21. De Rennes; flowers blush, large; form, globular.

D'Abbeville; see Triomphe d'Abbeville.
22. D'Auteuil; flowers deep rosy crimson, with small white spots, their circumference inclining to blush, of medium size, full; form, cupped. Habit, branching; growth, moderate. A neat Rose.
23. D'Avranches ; flowers deep pink, their circumference blush, large and full; form, expanded. Habit, pendulous; growth, moderate. A showy Rose.
24. D'Angers or D'Ansou; flowers glossy rose, shaded with lilac blush, of medium size, full; form, cupped. Habit, branching; growth, moderate. A showy Rose.
De la Hogue; see Reine de Provence.
25. Descemet ; flowers rich even rose, changing to pale rose, large and double;
form, cupped. Habit, branching; growth, vigorous. A beautiful Rose: a good seed-bearer.
26. Diane de Poitiers (hybrid); flowers delicate rose, mottled, large and full. Introduced in 1845.
27. Diantheflora; flowers light rose, small, and very double; of a singular appearance.
28. Du Trianon (hybrid); flowers fine even pink, large and double; form, cupped. Habit, branching; growth, robust.
29. Duc d'Angoulême (hybrid); flowers rosy lilac, mottled with crimson, of medium size, full; form expanded. Habit, branching ; growth, vigorous.
30. Duc de Choiseull Ponctué (hybrid); flowers of a lively rose, covered with small white spots, large and very double; form, compact. Habit, branching; growth, moderate. A beautiful Rose. A good seed-bearer.
31. Duchesne (hybrid); flowers brilliant rose, large, and very double; form, globular; growth, moderate.
Duchesse d'Orléans; see Group IX., Hybrid French.
32. Dutch Provence; flowers rose, very large and full; form, globular. Closely resembles the Common Provence.
33. Eliza Lecker (hybrid); flowers deep glossy pink, covered with white spots, of medium size, full; form, expanded. Habit, pendulous; growth, moderate.
34. Foliacée ; flowers light rose, very large and full; form, globular.
(Caroline de Berri.)
35. Gracilis, or Shailers (hybrid); flowers pale rosy pink, their circumference lilac blush, of medium size, full; form, compact. Habit, branching; growth, small. A curious hybrid, differing from the Provence Rose generally.
Grand Agathe; see Lacken.
36. Glandulosa; flowers rose-colour; leaves presenting a curious appearance, being edged with gold.
37. Hypacia (hybrid); flowers rosy red, veined and spotted with white, of medium size, full; form, cupped, perfect. Habit, branching ; growth, vigorous. A beautiful Rose.
38. Hulda (hybrid); flowers dark velvety purple, of medium size, double. Raised at Angers. Introduced in 1845.
39. Inès de Castro (hybrid); flowers of a delicate flesh-colour, of medium size, full.
40. Indiana ; flowers blush, very large and full.
41. Jacquinot; flowers deep rose, with a streak of white tracing the centre of each petal, of medium size, double; form, expanded. Habit, branching; growth, moderate. A pretty and distinct Rose.
42. Justine Ramet (hybrid); flowers purplish rose, of medium size, full. Introduced in 1845.

King of Holland; see Stadtholder.
43. L'Admiration (hybrid) ; flowers delicate rose, of medium size, full.
44. La Fiancée (hybrid); flowers creamy white, their centre flesh-colour, of medium size, full ; form, compact. Habit, erect; growth, moderate. A neat and pretty Rose.
45. Lacken ; flowers rosy blush, large and full ; form, globular. Habit, branch(Grand Agathe) ing; growth, moderate.

La Jeune Reine; see Group VIII., French.
46. Ligne striata; flowers pale rose, large and very double; form, globular.
47. Laura (hybrid); flowers deep rosy pink, large and full; form, cupped, perfect. Habit, pendulous ; growth, moderate or vigorous. The flowers are produced in graceful clusters, containing ten or twelve flowers each, when the plant is in a vigorous state.
48. Le Grand Triomphe (hybrid); flowers crimson, large and full.
49. Madame Henriette (hybrid); flowers rosy lilac, outer petals blush, very large and full; form, cupped, perfect. Habit, branching; growth, moderate. This is a model of a cupped flower; the outer petals, standing erect and stiff, maintain the flowers in this form for a long time.
50. Madame Huet (hybrid); flowers of a delicate flesh-colour, their circumference blush ; the flowers sometimes spotted, and mottled with white; of medium size, full. Habit, branching; growth, moderate; the shoots thickly covered with small spines.
51. Madame L'Abbey (hybrid); flowers brilliant rose, large and full; form, cupped. Draws closely towards the Hybrid French.
52. Marquise d'Alpré ; flowers clear lilac rose, large and full.
53. Mathilde de Mondeville (hybrid); flowers blush, shaded with delicate flesh, of medium size, full; form, globular. Habit, pendulous; growth, moderate. An abundant bloomer, and a pretty Rose.
54. Monstrous; flowers deep rose, large, and very double; form, globular.
(Bullata) Foliage very singular.
55. New Cabbage Rose; flowers even rose, decper in colour, and larger than those of the Old Cabbage Rose; form, globular, perfect. Habit, branching; growth, vigorous.
Petite Beauté; see Group IX., Hybrid French.
56. Nicolette (hybrid); flowers flesh-colour, of medium size, full; form, cupped.
Pompon de Laqueue; see Group IX., Hybrid French.
57. Rachel; flowers rose, their circumference of a lilac blush, large and full; form, globular. Habit, branching; growth, vigorous. A showy and a good Rose.
Regent ; see Scarlet.
58. Reine de Provence; flowers glossy lilac blush, large and very double; (Div. II.)
form, globular. Habit, branching ; growth, vigorous; shoots very spinous. A beautiful Rose, with fine even petals.
59. Rochebardon ; flowers deep rose, large and very double; form, cupped.
60. Roi de Pays Bas (hybrid); flowers deep pink, large and full; form, cupped. A beautiful Rose.
61. Rose de Costre (hybrid); flowers vivid rosy crimson, changing to rosy lilac, large and full; form, compact. Habit, branching; growth, vigorous.
62. Royal ; flowers blush, of medium size, full ; form, globular.
63. Salmacis (hybrid); flowers rosy peach, mottled with blush, glossy, of medium size, full; form, cupped. Habit, erect; growth, moderate. Introduced in 1841.
64. Srotted Provence; flowers deep rose, spotted with white, large and double; form, cupped.
65. Striped Provence; flowers pale flesh, striped with rose, of medium size; (Vilmorin inermè panachè) form, globular.
66. Scarlet Provence; flowers rosy lilac, their centre deep rose, large and
(Regent) double; form, expanded. Habit, branching; growth, vigorous. A good seed-bearer.
67. Stadtholder; flowers rosy crimson, blush towards their circumference; sel-
(King of Holland) dom free from the green bud in their centre, but when so, magnificent; very large and full ; form, globular. Flowers supported by a curious leafy calyx.
68. Sylvain (hybrid); flowers dark rose, of medium size, full; form, cupped. Habit, branching ; growth, vigorous.
69. Sulkowskil (hybrid); flowers light vivid crimson when first expanding, soon changing to rose, their circumference inclining to dove-colour, the whole sprinkled with white spots ; of medium size, full; form, expanded. Habit, branching ; growth, moderate. Introduced in 1841. Superd Striped Unique; see Unique Panaché Superb.
70. Triomphe d'Abbeville (hybrid) ; flowers vivid even rose, the petals smooth
( $D^{\prime}$ Abbeville) and beautiful; large and double; form, expanded. Habit, branching; growth, vigorous when young, but afterwards moderate only.
71. Unique; flowers paper white, large and full ; form, deeply cupped. Habit, (White Provence) erect; growth, vigorous. A good white Rose, well suited for clumping.
72. Unique Panachè Superb; flowers white striped with lake, but sporting
(Superb Striped Unique) much, sometimes coming altogether white, and sometimes wholly red; large and full; form, cupped. Habit, erect; growth, vigorous, shoots very spinous. This is one of the most beautiful Striped Roses known ; but there is some difficulty in keeping it in true character. To assist in this, avoid a rich soil; let it be planted in a mixture of good turfy loam, burnt earth, and old mortar or
brick rubbish, two parts of the former to one of each of the latter.
73. Vilmorin ; flowers bright flesh-colour, large and full. A very pleasing Rose.
Vilmorin inermé panachè; see Striped Provence.
74. Wellington (hybrid); flowers vivid even rose, of medium size, and double; form, cupped. Habit, branching ; growth, vigorous.
White Provence; see Unique.
75. Wilberforce (hybrid); flowers deep rosy crimson, vivid when newly expanded, large and very double; form, globular. Habit, pendulous; growth, robust. A good seed-bearer.
76. Zhéra; flowers lilac red, of medium size, double. Introduced in 1844.

## ROSACENTIEOTIA.

## Group VI.-THE MINIATURE PROVENCE, OR POMPON ROSE.

The Roses in this group are remarkable for their diminutiveness. They are well adapted for edgings to the Rosarium, or Rose-clumps generally. They are sometimes planted in masses, in which manner they look well, as they are of neat growth, and bloom profusely; but they do not last long in flower: and for this reason we should hesitate to recommend them, except under particular circumstances. The Chinese and Bourbon Roses are usually preferred for this purpose; and no wonder, when it is considered that they produce their beautiful flowers during one half of the year. Of the varieties of "Pompon Roses," those most generally in cultivation are "Dwarf Burgundy," "De Meaux," "Spong," and "White Burgundy," and I believe they are the best.

1. De Meaux ; flowers light rose, very small and full. Habit, erect; growth, small. (Pompon.)
2. Dwarf Burgundr; flowers deep red, very small and double; form, cupped. Growth, small.
3. Cilleet ; flowers rose, petals serrated, very small. Pompon; see De Meaux.
4. Pompon du Ror ; flowers purplish rose, edges white, very small and full.
5. Spong; flowers pale rose, small, and very double; form, cupped.
6. White Burgundy ; flowers white, their centre pink, very glossy, very small and very double; form, cupped. A pretty Rose.

## ROSAC玉MTİOXIA.

Group VII. - THE MOSS ROSE.
The history of the Moss Rose is wrapped in obscurity. It was first introduced to England from Holland; and it is generally believed that it was a sport from the Provence Rose ; that it was not originated by seed, as most new varieties are, but by a branch of the Provence Rose sporting, as it is termed,-that is, producing flowers differing in character and habit from others of its own nature,-flowers enveloped in moss. Some tribes of plants are more disposed to sport than others; and the Provence and Moss Roses possess this peculiar property to a remarkable degree. I have seen the White Moss bearing at the same time, and on the same plant, red, white, and variegated flowers. I have also seen the Perpetual Moss, whose flowers should be white, produce pink flowers, entirely destitute of moss. I am informed, and think it probable, that the Moss Unique was first obtained in this manner : a branch of the White Provence Rose produced flowers enveloped in moss; the branch was propagated from; and the plants so propagated produced flowers retaining their mossy characteristic.

Like many others, the group now before us has been much improved of late years: many of the old varieties, formerly so much esteemed, though possessed of but few petals, and almost destitute of form and fragrance, are now quietly departing to give place to more perfect kinds. A remarkable illustration of the effects of hybridizing is met with here. There have been introduced lately some Moss Roses of the most vigorous growth, with shining foliage; and others bearing flowers in the autumn. The former have been produced by crossing the Moss with the Hybrid Chinese Roses, or vice versit: the latter by bringing together the Moss and Perpetual. (See Article Hybridizing.)

The Perpetual Moss we refer to a separate group (Class II. Autumnal Roses): the others we retain with the original group, merely marking them as hybrids. Besides these, there are some varieties possessing some of the characters of the French Rose. Such are Celina and Luxembourg.

Moss Roses require high cultivation; some are of delicate growth, and will only flourish in a kindly soil ; others are very hardy; but all, whether hardy or delicate, delight in a rich soil. But few of the Moss Roses are well adapted for Standards : it is true that many will exist as such, but they merely suffer existence; they cannot be said to flourish. The Moss should be grown either on their own roots, or budded on short stems (the latter is preferable in most cases), and should be closely pruned. Exceptions may be made to this rule, which will be noticed in describing the varieties.

If we except the common Moss, we do not consider this group well suited either for pot-culture or for forcing. Their distinctness, however, stands forth prominently in their favour; and in large collections it is worth while to introduce
a few, for the sake of variety. The Flower Garden or the Rosarium is their proper place; and we think a greater space should be allotted them there than is usually done. No Roses can be more interesting ; certainly none are more beautiful. It is true they do not thrive well in all soils. I received a Letter last year from a distinguished Amateur, in which he says, "I will look at none but hardy Moss, for the majority do not thrive well here." The situation is eminently favourable for Roses, but the soil is rather cold and heavy. This unriddles the mystery. All the Moss Roses should be planted in a tolerably dry, warm, and rich soil, with an airy exposition; and the result is sure to be satisfactory. Where such is unattainable, the hardiest only should be cultivated, and these budded on the Dog-Rose.

On such soils as I have just recommended, the varieties termed "vigorous" may be fashioned into "Pillar-Roses," and they are indeed unique when cultivated in this manner. Some of our readers may perhaps doubt whether Moss Roses are suited for this purpose ; and writers have too often spoken of them collectively as being of dwarf and delicate growth. What will such say to a pillar formed with the old Red Moss reaching to the height of 15 feet? That such an one exists I can confidently assert; for I measured the plant last autumn in company with the owner, who assured me he could have trained it higher, but that he was unable to obtain poles to support it. It cannot be said that the pillar is well furnished with branches the whole height, but I feel confident that many varieties will form handsome, well-furnished pillars six or eight feet high. Surely much more is not required. Ten feet is perhaps the maximum of height desirable even for a Pillar-Rose. Beyond this, not only are the best flowers out of sight, but there is infinite trouble in protecting the plants from the wind, in pruning, \&c.

If the reader should wish to see the plant alluded to above, it is in the garden of Mr. Anderson, of Bull's Cross, near Cheshunt, growing within a few feet of the road. When I inspected his Moss Roses last winter, some of the shoots of the previous year's growth were above six feet long, and extremely robust, and the main stems had swelled to a considerable size. The mossy calyces were still hanging on the trees, shewing there had been an abundance of flowers. There were several other plants of the Moss Rose formed as pillars, two or three of which were nearly equal in height to the one above mentioned.

Now to what circumstances is this uncommon case due?-for uncommon I admit it to be. Is it owing to situation, soil, the age of the trees, or the fostering care of the cultivator? Partly, I should say, to all. The garden lies open to the sun; the situation is airy ; the soil is a brownish loam, not exactly light, but friable, and containing a grood share of vegetable matter;-a soil in which Wallflowers and Fuchsias vie with Roses in vigour. The ages of the largest Rose-trees are probably from twelve to twenty years.

The amount of attention they may have received it is difficult to say: the present owner did not seem conscious of having done great things for them, though the condition of the garden, a small plot of ground, evinced more than common
care and attention. I should rather suspect these Roses, having been greatly admired when less remarkable, became pets, and the attention paid them when young went far to bring them to their present state. However it may have been, it is a fact of which we may avail ourselves to vary and increase the beauties of the Rose Garden. Could any thing be more beautiful than a collection of Moss Roses, formed into pillars varying in height from six to eight feet? There is an abundance of material with which to form such. All the kinds marked "vigorous" are suited for the purpose.

The moss-like substance which surrounds the flower-buds of these Roses is a sufficient mark of distinction; but they are altogether dissimilar to others. They vary much in character and vigour.

1. Àfeuilles d'Agathe; flowers blush, of medium size, full; form, globular ; growth, moderate. Produces an abundance of flower-buds, but many die off before expanding.
2. A feuilles luisantes; flowers delicate pink, their circumference blush, of medium size, full; form, globular. Habit, branching; growth, moderate. A free bloomer; flowers produced in clusters; leaves shining to a great degree. Introduced in 1843.
3. $\grave{\text { A }}$ feutlles pourpre; flowers bright purplish red, of medium size, double; form, cupped. Leaves of a purplish red.
4. À gros fruits; flowers rose, large, and semi-double.
5. Aixa (hybrid); flowers delicate rose, of medium size; form, compact.
6. Alice Leroi; flowers lilac blush, shaded with rose, their centre deep rose, very large and double, well mossed; form, cupped, perfect. Growth, vigorous. A distinct and beautiful Rose; thrives well as a standard; should be pruned moderately close. Introduced in 1842.
7. Anemone; flowers even light crimson, the centre petals curling among the (Sanguinea) stamens, of medium size, double; form, cupped. Growth, vigorous. Requires but little pruning.
8. Angélique Quétier; flowers rosy lilac, petals even, large and very double; well mossed; form, cupped; exquisite in the bud state. Growth, vigorous, forming a head densely clothed with foliage. A free blooming and good variety, thriving well as a Standard.
9. Asepala; flowers white shaded with flesh, and sometimes edged with rose colour, the edges of the petals curled, small and full; form, compact. Habit, erect; growth, moderate. More curious than beautiful.
10. Belle Rosalie; flowers light crimson, of medium size, double; form, cupped.
11. Buusi ; flowers blush, their centre inclining to pink when newly expanded, well mossed, large and full; form, cupped. Habit, branching; growth, moderate; foliage, fine. A beautiful Rose.
12. Blush (Hooker) ; flowers lilac blush, of medium size, double; form, com-

pact. Habit, erect ; growth, robust. Foliage curious, thickly clothing the stems, forming a dense bush or tree. Raised at Brenchley, in Kent. A good seed-bearer.
13. Brillante; flowers light vivid crimson, slightly mottled with dark slate, large and semi-double; form, expanded. Habit, erect; growth, vigorous. A showy Rose. A good seed-bearer.
14. Catherine de Wurtemberg; flowers delicate rose, large and very double; form, compact, fine. Prune very little. Introduced in 1843.
15. Celina ; flowers deep rosy crimson, shaded with dark purple, a streak of white occasionally tracing the centre of a petal; colour brilliant when newly opened; large and double; form, expanded. Growth, vigorous. A beautiful Rose; thrives well as a Standard. A good seed-bearer.
16. Charlotte de Sor; flowers rose, of medium size, full; curious foliage. Introduced in 1843.
17. Collet ; flowers delicate rose, paler at their circumference, of medium size, very double.
18. Common, or Old; flowers pale rose, very large and full, well mossed ; form, globular. Growth, vigorous; foliage fine. One of the most beautiful. Thrives well as a Standard.
19. Comtesse de Murinais ; flowers pale flesh when newly opened, soon changing to white, large and very double; form, cupped. Growth, vigorous. Raised from seed by M. Vibert in 1843, and is, according to his authority, the only White Moss Rose ever raised from seed. Forms a fine Standard.
20. Comtesse de Noé; flowers brilliant crimson and purple, changing to deep lilac before shedding their petals, of medium size; form, perfect; flowers produced in clusters, consisting of fifteen or twenty blossoms each. Growth, vigorous; foliage of a dark green, shining. Raised at Gentilly. Introduced in 1846.
21. Condorcet; flowers of a beautiful clear rose, of medium size, very double; form, globular. Habit, branching; growth, vigorous.
Crested Moss; see Group V. Provence Rose, "Cristata."
22. Crimson; flowers rose, large and double; form expanded, well mossed.
(Damask Moss) Growth, vigorous; foliage large and fine. Raised at Tinwell, in Rutlandshire; and hence sometimes called the Tinwell Moss.
23. Crimson French; flowers rosy crimson, of medium size, full; form,
('Ecarlate) expanded. Habit, branching; growth, moderate. The wood has a reddish appearance from being densely covered with red spines.
24. Crimson Pompon; flowers purplish red, small and full; form, compact.
(OscarFoulard) Habit, branching ; growth, moderate, or small.
Damask Moss; see Crimson.
25. De la flèche; flowers purplish red, of medium size, double, well mossed; (Scarlet) form, cupped.
26. Delphinie (hybrid); flowers bright rose, small; form, cupped. Growth, vigorous.

## De Meaux ; see Pompon.

27. De Metz; flowers even glossy rose, large and very double; form, expanded. Growth, moderate; shoots very spinous. A beautiful Rose.
28. D'Orléans ; flowers even rose, of medium size, full; form, cupped. A neat (Hélène Mauget) and good Rose. Habit, branching'; growth, moderate.

De Vieillard; see Vieillard.
'Ecarlate; see Crimson French.
29. 'Eclatante; flowers deep even pink, large and double, well mossed; form, expanded. Growth, vigorous; foliage, large. Thrives well as a Standard. A fine showy Rose.
30. Emperor; flowers reddish crimson, of medium size, full; form, compact. Habit, branching; growth, vigorous; shoots thickly covered with red spines. A very pretty Rose; not unsuitable for a short pillar. Raised at Brenchley, in Kent.
31. Etna ; flowers brilliant crimson with a purplish tinge, of large size, and very double. A beautiful Rose. Raised at Angers. Introduced in 1845.
Ferrugineuse; see Luxembourg.
32. Ferrugineuse pleva nota; flowers bright rose, of medium size, full. Habit, branching; growth, vigorous.
33. Flagellipetala; flowers flesh colour, of medium size, double.
34. Foncée; flowers rosy pink, large and full; form, cupped. Habit, branch(Rose Foncée) ing ; growth, vigorous. A good Rose.
35. Globuleuse; flowers light vivid crimson when first opening, changing paler before shedding their petals, of medium size, double; form, globular, fine. Habit, branching ; growth, robust. Forms a good Standard. Should be pruned moderately.
36. Gracilis; flowers deep pink, large, and full, well mossed; form, globular. (AFinor) An abundant blooming variety, with fine large foliage; excellent for (Prolific) clumping. Growth, vigorous; forming a good Standard.
37. Grandiflora; flowers deep rose, very large and double; form, cupped. Hélène Mauget; see d'Orleans.
38. Héloïse; flowers rosy crimson, of medium size, full ; form, compact. Habit, branching; growth, vigorous. A good Rose. Introduced in 1845.
39. Hortensia ; flowers red, large and double; form, cupped.
40. Indiana; flowers rose, of medium size, very double. Introduced in 1845.
41. Josephine; flowers deep rose, of medium size, double; form, globular. Laffay's Seediing; see Pourpre (Laffay).

* La Diaphane (hybrid); flowers blush rose, large and very double; form, globular. Habit, pendulous; growth, moderate. A free bloomer. This Rose is very pretty in bud; the colour of the flowers is remarkably clear, and the form superb. It was raised by M. Laffay of Bellevue, from whom we expect to receive it this autumn. It is a hybrid between the Moss and French.

42. Laneir (hybrid); flowers rosy crimson, occasionally tinged with purple, large and full; form, globular. Buds broad and bold, fine in form when first expanding, foliage very large. Raised by M. Laffay of Bellevue. Now in the hands of Messrs. Lane and Son. We have not had an opportunity of seeing this variety growing. The above description was taken from flowers exhibited at Chiswick in June last. If the flowers there shewn had not been shaded, we think it will prove a first-rate variety.
43. Lancel; flowers rich rosy crimson, vivid, the outer petals reflexing shortly after the flower expands; large and full, well mossed; form, expanded. Habit, branching ; growth, moderate or vigorous; leaves occasionally mossed. A beautiful Rose.
44. Lansezeur; flowers purplish crimson, streaked with rosy lilac, of medium
(Panaget) size, double; form, cupped.
45. Le Vésuve; flowers crimson purple.
46. Louise Colet ; flowers delicate glossy blush, shaded with rosy lilac, large and double; form, cupped. Growth, moderate. Introduced in 1840.
47. Luxembourg (hybrid); flowers deep crimson, often shaded with purple, of
(Ferrugineuse) medium size, and double; form, expanded. Growth, vigorous. A beautiful Rose, not unsuitable for a short pillar, or a standard; requires but little pruning. A good seed-bearer.
48. Malvina (hybrid); flowers rosy pink, produced in clusters, large and full, well mossed; form, cupped. Habit, branching; growth, vigorous. A fine Rose, well adapted for a Standard. Introduced in 1841.
49. Marbrée; flowers bright rose, well marbled, or spotted with blush, of medium size, double; form, cupped. Habit, erect ; growth, vigorous; shoots, very spinous. Introduced in 1842.
50. Mauget ; flowers purplish rose, of medium size, full ; form, cupped.
51. Miniature; flowers light crimson, small and semi-double; form, cupped. Growth, moderate.
Maculée; see Spotted.
Minor; see Gracilis.
Mottled; see Prolifère.
Mrs. Wood; see Renoncule Pourpre.
Oscar Foulard; see Crimson Pompon.
Panachée; see Striped.
(Div. II.)
52. Panachíe pleine; flowers white or flesh-colour, occasionally beautifully streaked with rose, of medium size, very double; form, cupped. Growth, vigorous. Probably a sport from the White Bath Moss, which it resembles closely in some points. A beautiful Rose at all times, especially when the stripes are regularly developed. To assist in this, plant it in a rather poor, but fresh soil (turfy loam, for instance), giving only sufficient manure to keep the plant moderately vigorous.
Panaget; see Lansezeur.
53. Partout; flowers light rose, large and full; form, cupped. Habit,
(Zoé) branching; growth, vigorous; shoots, very spinous ; leaves, mossed and curled. A curious and beautiful Rose, but a shy bloomer. Plant it in a good rich soil, and good aspect, and prune moderately close.
Perpetual Mauget ; see Group XXXI. Perpetual Moss.
Perpetual White; see Ditto.
54. Picciola ; flowers lively crimson, mottled with blush, of medium size, double; (Scarlet Pompon) form, expanded. Growth, moderate or dwarf. A pretty Rose. 55. Pompon; flowers blush, their centre pale pink, small and full; form, (De Meaux) cupped. Habit, dwarf. A very pretty and interesting Rose, but of rather delicate growth in most situations. Prune closely. Decidedly not adapted for a Standard Rose. Found growing in a garden at Taunton, in Somersetshire, about thirty years ago. Probably a seedling of some Moss Rose, fertilized with the old Pompon.
55. Pompon d'Angers ; flowers reddish purple, small and double. Raised at Angers. Introduced in 1846. Prune closely.
56. Ромpon feu; flowers light vivid crimson, of medium size, full; form, expanded. Habit, dwarf. A free bloomer, and a pretty and distinct Rose.
57. Ponctuée nouvelle; flowers rosy crimson, sometimes covered with large white spots, large and semi-double; form, cupped. Habit, erect; growth, vigorous. A distinct Rose. Introduced in 1842.
58. Ponctuée (Laffay); flowers rose, spotted with white, large and very double. Raised at Bellevue. Introduced in 1846.
59. Pourpre (Laffay; hybrid); flowers rich crimson, shaded with purple, of
(Laffay's seedling) medium size, double; the colours of the buds most beautiful; form, cupped. Growth, vigorous. This variety requires but little pruning. Well adapted for a short pillar.
60. Précoce; flowers rosy red, sometimes spotted at their circumference, of medium size, full. A very early blooming variety. Introduced in 1843.
61. Presque Partout; flowers rose, of medium size, full; form, cupped. Growth, vigorous. Probably a sport from M. Partout, which va-
riety it resembles in some particulars, but is a freer hloomer and a better Rose. Forms a fine Standard. Prune moderately.
62. Princess Royal; flowers purple and crimson, beautifully mottled, large and double; form, cupped. Growth, vigorous; shoots, very spinous. A very showy Rose, forming a fine Standard or short Pillar Rose.
63. Princesse Royale (Portemer); flowers rosy flesh, large and full; form, globular, beautiful, well mossed; flower stalks very erect. Raised at Gentilly. Introduced in 1846.
64. Princesse Adelaide (hybrid); flowers pale glossy rose, blooming in large clusters, large and full; form, compact. Habit, erect; growth, vigorous. A fine Rose for a sunny wall or pillar. Does not flower well in a rich soil, nor when closely pruned. Evidently a hybrid, probably between the Moss and some Hybrid Bourbon Rose. Raised at Bellevue.
Prolific; see Gracilis.
65. Prolifère; flowers deep rose, large and full, too full to open well at all
(Mottled) times; form, cupped. Growth, vigorous. A good forcing Rose.
66. Pyracantha; flowers rosy crimson, of medium size, double; form, expanded. Foliage, distinct and curious.
67. Rebecca ; flowers reddish pink, small and full; form, cupped.
68. Renoncule pourpre; flowers purplish crimson, of medium size, full; form, (Mrrs. Wood) cupped.
69. Rose Pâce; flowers blush, their centre rose-colour, large and full; form, cupped. A first-rate Rose. Forms a good Standard.
Rose Foncée; see Foncée.
70. Rosinella; flowers rosy pink, of medium size, double; form, expanded. Habit, erect; growth, vigorous; the leaves of a reddish brown when young.
71. Sage-leaved Moss; flowers bright rose changing to lilac rose, large and full ; form, cupped. Growth, moderate. The leaves resemble those of Sage : hence its name. The veins and edges of the leaves appear quite red when in a young state. A curious and distinct variety.
Sanguinea; see Anémone.
Scarlet; see De la flèche.
Scarlet Pompon; see Picciola.
72. Semi-double; flowers violet purple, of medium size, semi-double.
73. Single Crimson ; flowers brilliant crimson, changing to purplish crimson, large and single, sometimes semi-double; form, expanded. Growth, vigorous; foliage, of a fine dark green.
74. Splendens; flowers pale glossy peach, large and double; form, expanded. Habit, branching; growth, moderate or vigorous; foliage, fine. A pretty and distinct variety. A good seed-bearer.
75. Spotted Moss; flowers deep even rose, very bright when newly expanded, (Mraculée) spotted with a few whitish dots, of medium size, semi-double; form, cupped.
76. Striped Moss; flowers delicate flesh, occasionally striped with rose, of (Panachée) medium size, and semi-double; the striped character inconstant, and the flowers but slightly mossed; form, cupped. Habit, branching ; growth, moderate.
Tinwell; see Crimson.
77. Unique; flowers pure white, occasionally tinted with lake after expansion, large and full, well mossed; form, cupped. Habit, erect; growth, moderate; shoots, very spinous. Rather a poor grower. Said to be a sport from the Unique or White Provence.
78. Varacel; flowers crimson purple, spotted with rose, small and full. Habit, branching ; growth, vigorous. The leaves of the young shoots are of a reddish brown.
79. Velours Pourpre; flowers light crimson, of medium size, full.
80. Vilmorin ; flowers rosy pink, large and double.
81. Vieillard ; flowers delicate rose, of medium size, full. Growth, vigorous;
(De Vieillard) the shoots and leaves mossed and thickly covered with mossy spines; foliage, large and drooping. An elegant Rose, but not a very free bloomer.
82. White French; flowers French white, of medium size, full; form, cupped. Growth, delicate. Inferior to the White Bath Moss.
83. White $\mathrm{Bath}_{\text {; }}$; flowers paper-white, occasionally producing striped or pink petals, well mossed, exquisite in bud, large and full; form, globular. Habit, erect; growth, moderate. A beautiful Rose, and still the best White Moss.
Zoé; see Partout.

## RoSA GALIICA.

## Group VIII.-THE FRENCH ROSE.

The French, or Garden Roses, as they are often termed, form the most extensive group belonging to the genus "Rosa." They have been long, very long, under cultivation, and many of the old varieties are prolific beyond measure in producing seed, which vegetates freely. Hence is accounted for the number of French Roses which have been introduced to our gardens; and being in general full and finely-formed flowers, many even of the oldest are still admired and cultivated. The French Roses are very hardy, thriving well in the commonest garden soil. It is true that, like all Roses, their beauty is greatly increased when cultivated in a good soil, and planted in a favourable site; but to those with whom Roses in general do not succeed well, it may be a source of
satisfaction to know, that if their choice should rest on this group, their efforts are not likely to end in failure. Undoubtedly, there are other groups equally hardy, and these we shall point out as they come before us. None can be more beautiful than the French Roses. All hues are here, and the flowers are remarkable for their brilliancy, fulness, perfect outline, and regularity in the disposition of the petals. Hence it will be inferred, that they are well adapted for growing for exhibition; and such is the case. But is there no other quality desirable? Yes, one-sweet-ness-and it is added to the rest.

In this group are to be found many interesting striped, marbled, and spotted Roses, singularly beautiful, and which, although highly popular in France, do not seem to suit the taste of English Rose cultivators. To see them in perfection, they should be viewed early in the morning before a summer's sun has dimmed their beauty; for the colours of these Roses, in particular, fly at the Fire King's approach, when the contrast often becomes too feeble to please.

The French Roses approach nearer to the Provence than to any other group: they are distinguished from them by a more upright and compact growth; the prickles are also smaller and less numerous, and the flowers are more flat. The Hybrid Chinese are descended from these, but there is little fear of confounding the two.

French Roses form fine low Standards; in which manner they are displayed to great advantage. In pruning, the heads should be well thinned out, as they are disposed to produce an abundance of shoots, far more than can be suffered to remain, if fine flowers, combined with the ultimate good of the tree, are the chief ends in view. Thin out the heads well; then, when pruning, shorten the shoots left, back to four, five, or six eyes, or to where the wood is firm and well ripened, and the eyes full and plump.

1. A rameaux sarmenteux; flowers rose striped with lilac, of medium size, semi-double. Raised at Angers. Introduced in 1845.
2. A fleurs de Rose-Trémière de la Chine; flowers rosy crimson, petals (Trémière de la Chine) edged and mottled with blush, large and double; form, cupped. Habit, branching; growth, moderate. A pretty Rose.
3. A fleurs et feuilles marbrée; flowers blush, prettily marbled with rose, sometimes beautiful, of medium size, full ; form, compact. Habit, erect; growth, small; leaves occasionally spotted with yellowish green.
4. Abaillard ; flowers rose, marbled, of medium size, full. Raised at Angers. Introduced in 1845.
5. Abbé Berlèze; see Berlèze.
6. Abbé Robert; flowers purplish crimson, very large and full.

## ( Amy Robsart)

7. Abbesse; flowers crimson, occasionally spotted with white, large and very double; form, compact.
(Div. II.)
8. Adrienne Lecouvrier; flowers rosy crimson, thickly covered with small white spots, colours bright and pretty when first expanded, but quickly flying before the sun, of medium size, double; form, cupped. Habit, erect; growth, moderate. A distinct Rose. A good seedbearer.
9. Adèle Heu ; flowers fine rosy purple, covered with white dots, of medium size, double; form, expanded. Habit, erect; growth, moderate. A showy Rose.
10. Adèle Prevost ; flowers beautiful blush, their centre pink, the lower petals slightly reflexing soon after expansion, leaving the centre petals erect in the form of a cup, large and full; form, fine. Habit, erect; growth, vigorous. A very superior Rose.
11. Adelphine de Volsance; flowers rose, of medium size, full.
12. Adventurer; flowers rose, their circumference rosy lilac, large and very double; form, compact.
13. African Black; flowers dark rich brown crimson, with occasional tinges of scarlet, velvety, beautiful when first expanding, small and full; form, reflexed. Habit, erect; growth, small.
14. Agamède; flowers rose, sprinkled with small white spots, of medium size, full; form, reflexed.
15. Agar; flowers dark rose, spotted, of medium size, double. Raised at Angers. Introduced in 1843.
16. Agates Desfosses; flowers light blush, of medium size, full.
17. Agénor ; flowers reddish purple, of medium size, full.
18. Aglaé Adanson ; flowers rose, spotted with white, very large and double; form, cupped.
19. Agnes Sorrel ;flowers blush, large and very double; form, compact.
20. Agnodice; flowers rosy lilac, very large and full; form, compact. Habit, branching; growth, moderate. A fine Rose.
21. Agrippa; flowers dark violet purple, of medium size, full.
22. Aimable Henriette; flowers rosy crimson, spotted, of medium size, full. Raised at Angers. Introduced in 1842.
23. Alain Blanchard; flowers dark violet, spotted, large and double.
24. Albertine; flowers rose, lower petals changing to lilac blush, sometimes shaded with purple, pretty, of medium size, full; form, compact. Habit, pendulous; growth, small.
25. Alcime; flowers very dark violet, of medium size, double. Raised at Angers. Introduced in 1845.
26. Alcine; flowers deep rosy pink, spotted with white, their circumference inclining to lilac blush, large and double, glossy; form, cupped. Habit, erect ; growth, vigorous.
27. Alicia ; flowers reddish lilac.
28. Aldebaran ; flowers even red, large and very double; form, cupped.
29. Althéer ; flowers violet red, of medium size, full; form, globular.
30. Alvares; flowers crimson purple, of medium size, full.
31. Ambroise Paré; flowers deep purple, spotted, of medium size, full. Raised at Angers. Introduced in 1846.
32. Amanda; flowers light purplish rose, of medium size, full; form, compact. Habit, erect ; growth, vigorous ; shoots, light green, spineless.
33. Amenaide; flowers light crimson, of medium size, very double; form, compact.
34. Amiable Queen; flowers fine even crimson, changing to crimson purple soon after expanding, of medium size, full; form, expanded. Habit, erect; growth, vigorous. A neat and good Rose.
Amy Robsart; see Abbé Robert.
35. Anacréon ; flowers violet purple, spotted with blush, large and double; form, expanded. Habit, branching; growth, vigorous. A distinct Rose.
36. Anarelle; flowers deep rosy blush, large and very double; form, expanded. Ancelin ; see Group X. Hybrid Chinese.
37. André Thourn ; flowers marbled purple, of medium size, very double.
38. Anna Czartoryski ; flowers mottled pink, large and double; form, cupped.
39. Antiope ; flowers purplish red, spotted, of medium size, very double. Raised at Angers. Introduced in 1842.
40. Antonine d'Ormois; flowers blush, their centre rosy flesh, large and very double, beautiful ; form, expanded. Growth, vigorous.
41. Apollo ; flowers rich crimson, shaded with purple, large and semi-double;

Superb Crimson) form, cupped; colours fine. Habit, erect; growth, moderate. A very showy Rose. A good seed-bearer.
42. Aramis; flowers French white, striped with rose, of medium size, double; form, cupped. Habit, erect; growth, moderate. A very pretty Rose. Raised at Angers. Introduced in 1845.
43. Ardoisée ; flowers red, large and full.
44. Aréthuse; flowers purplish rose, spotted, of medium size, full. Leaves, variegated.
45. Ariel; flowers rose-colour, very large and double.
46. Arlequin ; flowers clear red, marbled, of medium size, full.
47. Artémise; flowers rich dark purple, the petals traced by streaks of scarlet, the centre petals often rosy scarlet, of medium size, full; form, compact, becoming reflexed before the flowers drop. Habit, erect; growth, moderate. A beautiful Rose.
48. Athalie; flowers cherry red, occasionally shaded with purple, lively, very large and double; form, expanded. An abundant bloomer, very showy. Habit, branching; growth, moderate. A good seed-bearer.
49. Asmodée; flowers rosy crimson, large and full.

Aspasie; see Group IX. Hybrid French.
50. Assemblages des Beautés; flowers crimson scarlet, shaded with purplish
(Rouge éblouissante) crimson, of medium size, double; form, expanded. Habit, erect; growth, moderate. A most abundant bloomer, a showy and beautiful Rose. A good seed-bearer.
51. Aurelie Lemaire; flowers rosy pink, very beautiful, of medium size, full; form, globular. Habit, erect; growth, moderate; foliage, shining.
52. Avenant ; flowers deep flesh pink when newly opened, changing paler after expansion, large and very double ; form, expanded. Habit, erect; growth, moderate. An abundant bloomer, a pretty and desirable Rose.
53. Avocat Laloux; flowers bright cherry when newly opened, changing to violet, of medium size, full; form, globular.
54. Bandeau Nuptial; flowers blush, their centre rose, of medium size, very double; form, cupped.
55. Baneste pourpre flowers rich crimson purple, of medium size, full.
56. Baron Cuvier; flowers dark rose, changing paler after expansion, large and full; form, cupped. Habit, erect ; growth, moderate.
57. Baron Louis ; flowers purple, sprinkled with white dots, their centre rosy
(Le Baron Louis) crimson, of medium size, full; form, compact. Habit, erect; growth, moderate.
58. Baronne de Stael; flowers fresh salmon-pink, large and full; form, expanded. Habit, branching; growth, vigorous. A hybrid, partaking of the Damask in a small degree.
59. Baucis ; flowers rosy crimson, densely covered with lilac blush dots, of medium size, full; form, cupped. Habit, branching; growth, moderate.
60. Beauté du Jour; flowers rosy crimson, their circumference inclining to lilac, of medium size, full; form, expanded. Habit, branching; growth, moderate.
61. Beauté parfaite; flowers clear purplish red, of medium size, full; form, compact.
62. Beauté pourpre ; flowers clear purple, of medium size, double.
63. Beauté sauvage; flowers bright rose, very large and very double; form, cupped.
64. Beauté vive; flowers light vivid crimson, of medium size, full; form, compact, fine. Habit, branching; growth, small or moderate; a little hybridised with the Hybrid Chinese.
65. Beethoven ; flowers rose; form, cupped.
66. Belle Alzindor; flowers bright rose when newly opened, soon changing paler, and becoming shaded with slate, of medium size, full; form, compact. Habit, branching; growth, moderate.
67. Belle Auguste; flowers blush shaded with flesh, large and very double;
(Lee) form, expanded. Habit, pendulous; growth, moderate. An abundant and early bloomer, very showy.
Belle Courtesan ; see Group X. Hybrid Chinese.
68. Belle Cramoisie; flowers purplish slate, the base of the petals bright crimson, of medium size, full; form, globular. Habit, erect; growth, vigorous.
69. Belle de Crécy; flowers red, shaded with velvety puce, changing to dark slate soon after opening, exhibiting flowers of different characters on the plant at the same time, of medium size, full; form, expanded. Habit, erect ; growth, moderate, branches covered with small black spines. An abundant bloomer, and showy, but often faulty, from exhibiting a green eye in the centre.
70. Belle Desbrosses; flowers rosy pink, their circumference inclining to blush lilac, of medium size, full ; form, compact. Habit, erect; growth, vigorous. A very lively Rose when newly opened.
71. Belle de Charonne; flowers violet purple, of medium size, full.
72. Belle de Fontenay ; flowers rose, shaded with purple, the petals occasionally edged with white, of medium size, full; form, compact. Habit, branching; growth, small. A pretty Rose when the edging is perfect.
73. Belle de Zelbes; flowers blush, their circumference rose.
74. Belle de Marly; flowers bright rose, shaded with violet, large and full.
75. Belle Douasienne; flowers lilac and rose, of medium size, full; form, compact.
76. Belle Esquermoise; flowers red shaded, large and full.
77. Belle Héléne; flowers rosy crimson, of medium size, very double; form, cupped.
78. Belle Herminie; flowers purple spotted, of medium size, semi-double.
79. Belle Herminie, No. 2; flowers dark violet, spotted, very velvety, large and double.
80. Belle Herminie, No. 3; flowers violet purple, spotted, large.
81. Belle Herminie, No. 4 ; flowers reddish rose, marbled, of medium size.
82. Belle Herminie, No.5; flowers brilliant rose, spotted, of medium size, semi-double.
83. Belle Herminie, No. 6; flowers purplish violet, spotted, large and semidouble.
84. Belle Herminie, No. 7; flowers dark rose, very large, semi-double.
85. Belle Rosine; flowers deep pink, their circumference of a paler hue, large and full; form, expanded. Habit, erect; growth, moderate. A free bloomer, showy, and a good Rose.
86. Belle Satinée; flowers deep even rosy pink, petals placed erect, of medium
size, full ; form, compact. Habit, erect; growth, moderate. A pretty and distinct Rose.
87. Belle Violette; flowers violet, of medium size, full. Raised at Angers. Introduced in 1845.
88. Beranger; flowers rose, spotted with white, small and full.
89. Bírénice; flowers rose and crimson, shaded with slate, very rich and beautiful, very large and full; form, globular. Habit, pendulous; growth, vigorous.
90. Berleze; flowers slaty purple, shaded with chocolate, and sprinkled with small spots of the same colour, of medium size, double; form, expanded. Habit, erect; growth, vigorous. A curious and distinct variety. A good seed-bearer.
91. Bertha ; flowers creamy white, large and double; the petals very large.
92. Bijou des Amateurs; flowers crimson spotted, their circumference inclining to violet, of medium size, full.
93. Bijou d'Enghien ; flowers rose shaded, large and full; form, compact.
(Brillant d'Enghien)
Bizarre marbrée; see Cecile Boireau.
94. Blanche Hocidé; flowers pale rose, mottled with white, cupped, large and full.
95. Boildiev ; flowers bright light rose, large and full; form, compact.
96. Bolla de Nantelil; flowers crimson purple, their centre sometimes fiery (Comte de Nanteuil) crimson, the largest shaded dark rose, very large and full; form, compact. Habit, branching; growth, moderate. A splendid Rose, which should be in every collection.
97. Bouquet charvant ; flowers rosy purple, brilliant, large, and full.
98. Brabante de la Fontaine; flowers cherry-colour, finely shaded, brilliant.
99. Bracelet d'Amour ; flowers rosy lilac, of medium size, full.

Brillatt d’Enghien ; see Bijou d'Enghien.
100. Briseis; flowers brilliant rose, very large and full; form, cupped.
101. Bruvette; flowers scarlet, marbled with crimson purple, the tops of the petals reflexing, glowing, of medium size, full ; form, expanded.
102. Buffon ; flowers violet purple, large and full.
103. Buonaparte; flowers purplish rose, their outline perfectly circular, large and full; form, compact. Habit, erect; growth, moderate. A neat and good Rose.
104. Burgeois Gextilhomme; flowers lively cherry, spotted with lilac blush, the ground colour changing to lilac soon after expansion, displaying flowers of different colours on the plant at the same time, of medium size, double; form, expanded. Habit, erect; growth, moderate. An immense bloomer, and very showy. A good seedbearer.
105. Camaren ; flowers rose, striped with lilac, of medium size, full. Sometimes pretty, but a small, bad grower.
106. Cambronne; flowers bright rose, shaded with dark slate, very large and full; form, expanded. Habit, branching; growth, robust. A superb show Rose.
107. Camille Desmoulins; flowers rosy crimson, large and full.
108. Caranjean ; flowers lilac blush, large and full.
109. Cardinal Cheverus; flowers violet purple, large and full ; form, compact. Raised at Angers. Introduced in 1845.
110. Carmin Royale; flowers light crimson, variable, large and double; form, compact.
111. Carnation ; flowers crimson, striped with rose, double; form, cupped.
(I.ee's Carnation)
112. Casimir Perrier; flowers vivid rosy carmine, usually shaded with lilac and mottled with blush, large and full ; form, compact. Habit, erect; growth, moderate.
113. Catinat; flowers purple and crimson, shaded and spotted, their centre filled with numerous small petals, of medium size, very double; form, cupped. Habit, erect ; growth, vigorous.
114. Cécile Boireau ; flowers lively rose, marbled with blush, of medium size, (Bizarre MLarbrée) full; form, compact, slightly reflexing soon after expansion. Habit, erect; growth, moderate. An abundant bloomer, and an exquisite Rose.
115. Célestine; flowers rosy blush, of medium size, full; form, compact, perfect. Habit, branching; growth, moderate. A fine show Rose.
116. Celinette; flowers delicate flesh, the outer petals almost white, of medium size, full; form, compact. Habit, erect; growth, moderate.
117. Cerise superbe; flowers bright cherry, of a beautiful colour, of medium (Cerise Superbissima) size, very double. Habit, branching; growth, moderate. An abundant bloomer, producing a fine effect on the tree.
118. Champion; flowers purple, large and full.
119. Сhapeau noir; flowers crimson, shaded, full; form, compact.

Charles Auguste; see "Enchantress."
120. Charles X .; flowers dark purple, of medium size, full.
121. Charmante Isifore; flowers crimson, shaded and blotched with dove, of medium size, double; form, expanded. Habit, erect ; growth, small.
122. Chaste Susanne; flowers blush, very large and double; form, cupped. Clelie; see Group IX. Hybrid French.
123. Clemence Isaure; flowers deep rosy crimson, their circumferences changing to blush after expanding, large and full; form, compact, perfect. A good Rose.
124. Cicero; flowers rosy crimson, sometimes shaded with purplish slate, large and full; form, expanded. Habit, erect; growth, vigorous.
125. Clorinde; flowers dull purplish lilac, shaded with slate, their centre red, large, and full; form, compact, perfect. Habit, branching; growth, vigorous.
126. Cocarde rouge; flowers rosy pink, colour fine, very large and double; form, compact. Habit, pendulous; growth, moderate. A very showy Rose.
Cgur Aimable; see Madame Dubarry.
127. Colbert; flowers dark purplish crimson, of medium size, full; form, compact.
128. Colonel Coombes; flowers light crimson, shaded with purple and lilac, very large and full; form, expanded, perfect. Habit, erect; growth, vigorous. A bold and fine Rose.
129. Columella; flowers rich rosy crimson, often shaded with violet, the outer petals exquisitely disposed, slightly reflexing before the flower falls, of medium size, full; form, cupped, perfect. Habit, branching; growth, moderate. Raised at Angers. Introduced in 1841. A fine Rose.
130. Comte Foy; flowers bright rose, very large and double; form, cupped.
131. Comte de Flandre; flowers deep red, of medium size, full; form, cupped. Comte de Nanteuil; see Boula de Nanteuil.
132. Comte Lacépede; flowers rosy lilac, large and full.
133. Comte de Murinais; flowers slate, thickly covered with blush and chocolate spots, very large and very double; form, cupped. Habit, erect; growth, vigorous. A singularly beautiful variety.
134. Comte Walsh; flowers rose, mottled with crimson and edged with blush, small and full; form, compact. Habit, erect; growth, small.
135. Comtesse Almaviva; flowers lively red, large and full; form, compact, perfect. Habit, erect; growth, moderate. A good Rose.
136. Comtesse de Murinais; flowers clear rose, large and full.
137. Сомus; flowers rose, their centre crimson, of medium size and double; form, cupped.
138. Coquereau ; flowers rosy crimson, large and full.
139. Cora; flowers rich dark crimson purple, of medium size, full; form, expanded. Habit, erect ; growth, moderate.
140. Cordon Blev; flowers slate-colour, shaded, of medium size, full.
(Le Cordon Bleu)
141. Cornélie ; flowers deep rose, large and full.
142. Cosimo Ridolfi; flowers lilac rose, spotted, of medium size, very double; form, compact.
143. Couronne d'Amour; flowers deep pink, their circumference very large

and full ; form, compact. Habit, erect; growth, moderate. A most beautiful Rose. A fine show Rose.
144. Couronne de Président; flowers red, their centre crimson, large and full.
145. Couronne des Roses; flowers purplish crimson, of medium size, very double.
146. Couronne Impériale; flowers clear violet red, shaded, large and full.
147. Cramoisie Picotée; flowers violet crimson, sprinkled with small spots, of medium size, full.
148. Crivalis; flowers bright rosy crimson, shaded with purple, of medium size, full; form, compact. Habit, erect; growth, moderate.
149. Cupid; flowers delicate pink, large and double; form, cupped.
150. Cuvier; flowers rosy crimson, distinctly spotted with white, large and very double ; form, compact. Raised at Angers. Introduced in 1843.
151. Сүмодос白; flowers crimson, shaded with scarlet, large and double; form, cupped.
152. Cynthie ; flowers pale rose, their circumference almost blush, large and full; form, cupped, perfect. Habit, erect ; growth, moderate. An abundant bloomer, and a beautiful Rose.
153. Cyparisse; flowers rosy crimson, shaded with slate, of medium size, full; form, compact, fine. Habit,branching; growth, moderate. A very desirable variety.
154. Cyrus ; flowers lilac rose, large; form, cupped.
155. D'Aguesseau; flowers fiery crimson, occasionally shaded with dark purple, glowing, large, and full; form, compact, perfect. Habit erect; growth, moderate. A superb Rose. A good show Rose. See Plate III.
156. D'Assas ; flowers dark violet, spotted, of medium size, double. Introduced in 1844.
157. Daubenton; flowers rose, shaded with dove, very large and full; form, cupped. Habit, erect ; growth, vigorous. Sometimes most beautiful, but varies in quality.
158. De la Maitre-d'École; flowers delicate rose, large and full.
159. Delille ; flowers violet purple, finely spotted, of medium size, full.
160. Delphine; flowers purplish red; form, cupped.
161. Désiré Parmentier; flowers deep vivid pink, large and full; form, compact, perfect. Habit, branching ; growth, moderate. A showy and beautiful Rose.
162. Dessaix; flowers very deep purple, of medium size, full. Raised at Angers. Introduced in 1844.
163. Dido ; flowers rose, their centre crimson, large and full; form, cupped. Habit, erect; growth, moderate.
164. Docteur Dieltinm; flowers rose, often shaded with purple, very large (Div. II.)
and full; form, compact, perfect. Habit, branching; growth, robust. A noble Rose. A good show Rose.
165. Donna Franctsca ; flowers bright red, mottled with lilac.
166. Donna Matia; flowers light rose, large; form, cupped.
167. Donna Sol; flowers purplish rose, spotted with white, of medium size, very double; form, compact. Habit, pendulous; growth, robust; partakes slightly of the Provence. Introduced in 1842.
168. Dоroтнée; flowers rosy crimson, marbled and shaded with crimson purple, of medium size, full ; form, compact. Habit, branching; growth, moderate.
169. Duc D'Aremberg; flowers lively rose, their circumference inclining to
(Prince d'Aremberg) lilac, large and full; form, compact. Habit, erect; growth, vigorous. Flowers produced in clusters, the surrounding buds projecting far beyond the centre flower.
170. Duc de Bassano; flowers crimson and violet, irregularly marbled with white, of medium size, double, sometimes very rich and beautiful; form, expanded. Habit, erect; growth, moderate.
Duc de Baviére; see Lady Peel.
171. Duc de Bordeaux; flower's rosy lilac, large and full.
172. Duc de Guiche; flowers crimson, large and full.
173. Duc de Nemours ; flowers lilac, shaded with rose, and spotted with blush, small and full; form, reflexed. (Ranunculus-like.) Habit, erect; growth, dwarf. A very pretty little Rose.
174. Duc D'Orleans Ponctuèe; flowers rich cherry rose, covered with small white spots, large and double; form, cupped, perfect; petals, smooth and fine. Habit, branching; growth, vigorous. An excellent variety, but not double enough for a show Rose. There is a standard of this variety in the Nurseries here, whose stem, at three feet from the ground, measures ten inches in circumference. A good seed-bearer.
175. Duc de Trévise; flowers bright rosy crimson, mottled with violet, glowing, large and full; petals, thick; form, compact, perfect. Habit, branching; growth, moderate. An excellent show Rose.
176. Duc de Valmy; flowers light purplish rose, occasionally marbled with purple, large and full; form, cupped. Habit, pendulous; growth, moderate. A good Rose.
177. Duchess of Kent; flowers rosy blush, of medium size, full; form, cupped, perfect. Habit, branching; growth, moderate. An abundant bloomer, and a good Rose.
Duchesse d'Angoulème; see Group IX. Hybrid French.
178. Duchesse d'Abrantes; flowers pale rose or flesh, of medium size, full; form, compact, fine. Habit, branching ; growth, moderate.
179. Duchesse de Cléves; flowers light crimson, their circumference mottled
with dove, of medium size, very double; form, compact. Habit, branching; growth, vigorous.
180. Duciesse D'Orleans; flowers light vivid rose, large and full; form, cupped. Habit, branching; growth, moderate. A very showy Rose.
181. Duchess of Buccleuch; flowers lively crimson, their circumference inclining to lavender blush, very large and full; form, cupped, perfect. Habit, erect; growth, vigorous. A beautiful Rose.
182. Duchess of Richmond; flowers rosy lilac, very large and full; form, cupped.
183. Duguesclin; flowers blackish purple, shaded with chocolate, large and very double; form, compact. Habit, branching; growth, robust. Introduced in 1841.
184. Dumont D'Urville; flowers fresh rosy pink, of medium size, full; form, compact, perfect; the petals being disposed with great regularity. Habit, erect; growth, moderate. An abundant bloomer, and a good Rose.
185. Dupuytren; flowers rich crimson purple, very velvety, of medium size, full; form, expanded. Habit, branching; growth, moderate.
186. Eblouissante de Laqueue; flowers dark velvety crimson, their centre almost scarlet, large and double, sometimes very double; form, expanded. Habit, erect; growth, small. A beautiful Rose, which should have a place in every Collection, though not exactly fitted for a show Rose. The flowers vary somewhat as to colour and fulness; the more double the less brilliant in general. A good seed-bearer. See Plate II.
187. Éclat des Roses; flowers rosy purple, very large and full; form, cupped, perfect. Habit, branching; growth, moderate.
188. Eclatante; flowers bright scarlet; form, cupped.
189. Edouard de Colbert; flowers rosy red, large and very double.
190. Eglé; flowers deep bright rose, large and very double; form, compact.
191. Elisa Descemet; flowers blush, shaded with rose, large and very double; form, expanded. Habit, erect; growth, moderate.
192. Eliza Fleming; flowers pale pink when newly opened, changing to French white, shaded with pink, of medium size, full. Habit, erect; growth, vigorous. A distinct and pretty Rose.
193. Ella ; flowers dark velvety crimson, of medium size, full.
194. Elodie; flowers pink, large and very double; form, compact.
195. Enchantress; flowers light even rose, of medium size, full; form, cupped, perfect. Habit, erect; growth, moderate. An abundant bloomer, and a fine Rose.
196. Enfant de France; flowers clear purple, of medium size, full.
197. Enfant du Nord; flowers rosy crimson, of medium size, full; the petals at the circumference of the flower lying closely and regularly over each other ; form, compact. Habit, branching ; growth, robust. A pretty Rose.
198. Esther; flowers rose, striped with dark red, of medium size, double. Raised at Angers. Introduced in 1845.
199. Evcharis; flowers bright rose, their circumference pale rose, large and full.
200. Eugène Napoleon; flowers bright rosy crimson, shaded with bright purple, large and full, colours glowing when the flower is newly opened; form, compact, perfect. Habit, branching; growth, moderate.
201. Eugène de Barbier; flowers crimson, large and full; form, compact.
202. Eugènie; flowers rose, large and full.
203. Euphrasie; flowers deep rose, spotted with small spots, of medium size, full. Introduced in 1843.
204. Eưrydice ; flowers delicate rose, large and full.
205. Fanny Bias ; flowers blush, their centre rosy, large and full; form, com(Fanny Parissot) pact, perfect, the texture of the petals delicate. Habit, erect; growth, moderate. A beautiful Rose.
Fanny Parissot; see Fanny Bias.
206. Fatime ; flowers rose, spotted, of medium size, double.
207. Fénélon ; flowers purple, spotted, of medium size, double.
208. Feu Brillante; flowers light vivid crimson, of a splendid colour when newly opened, very large and double; form, expanded. Habit, erect; growth, robust. A very showy Rose. Petals large, often two inches broad. Raised at Angers. Introduced in 1842. A good seedbearer.
209. Feu de Moskowa ; flowers lively rose, shaded with purple, of medium size, full; form, cupped perfect. Growth, moderate. A pretty and desirable variety.
210. Fleur d'Amour; flowers scarlet crimson, shaded with purple, glowing, of medium size, very double; form, expanded. Habit, erect, fine; growth, moderate; foliage, fine. A good Rose; very beautiful viewed on the tree.
211. Fontenelle; flowers rose and slate, shaded, covered with small blush spots, large and full; form, expanded.
212. Fornarina; flowers rose, spotted with white, of medium size, full.
213. Fox ; flowers purple, mottled, large; form, compact.
214. Franklin ; flowers bright rosy crimson, shaded with slate, large and full; form, cupped. Habit, branching; growth, moderate. A fine Rose.
215. Gazelle; flowers delicate rose, very large.
216. Général Bertrand; flowers purplish slate, large; form, cupped.
217. Gníréal Bertrand (Vibert); flowers white, striped with red and lilac, of medium size, very double. Introduced in 1845.
218. Gééral Damremont ; flowers vivid rosy crimson, marbled with purple, (Superb Marbled) petals thick and fleshy, of medium size, full; form, reflexed. Habit, erect; growth, moderate. A fine Rose, remarkable for the erectness of its flower-stalks.
219. Général Donnadieu; flowers purplish red, very double; form, compact.
220. Gnéréal Foy; flowers purplish rose, their centre salmon rose, large and full; form, cupped, perfect. Habit, pendulous; growth, moderate.
221. Général Foy (Vibert); flowers purple, spotted with dark violet, of medium size, full. Introduced in 1844.
222. Général Lafayette; flowers scarlet, shaded with purple, of medium
(Lafayette) size, double; form, cupped. Habit, branching; growth, moderate. An abundant bloomer, and very showy.
223. Gil Blas; flowers deep reddish rose.
224. Girardon ; flowers violet red, large and full.
225. Giselle; flowers rose, spotted, of medium size, full. Raised at Angers. Introduced in 1843.
226. Gloire de Colmar ; flowers rich crimson; form, compact.
227. Glory of France ; flowers deep rose, their circumference of a lilac blush, very large and full; form, expanded. Habit, erect; growth, robust.
228. Gonatre; flowers light vivid carmine, occasionally mottled with purple, of medium size, full; form, compact, becoming reflexed before the flower falls. Habit, branching; growth, moderate.
229. Gonsalve; flowers violet red, of medium size, full; form, globular.
230. Graim Dosk; flowers dark purple, their centre rosy crimson, glowing, large and full; form, compact, perfect. Habit, erect; growth, vigorous. A good show Rose.
231. Grain d'Or; flowers dark rose, shaded and mottled with purple, their centre sometimes glowing, of medium size, full ; form, compact, the petals being very regularly disposed. Habit, erect ; growth, moderate. An abundant bloomer, and a good Rose.
232. Grandcsse Royale; flowers rosy purple, changing to rosy lilac, very large and double. Habit, branching; growth, moderate. A very showy Rose.
233. Grandissima; flowers rosy crimson, sometimes purplish, very large and
(Louis Philippe) full; form, compact, perfect. Habit, branching; growth, moderate. A fine show Rose.
234. Grandpapa; flowers purple, edged with crimson, sometimes a little mottled, of medium size, full; form, compact. Habit, branching; growth, vigorous. A good Rose.
(Div. II.)
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235. Grand Sultan; flowers purple and crimson, shaded, large and very double; form, expanded. Habit, branching; growth, robust.
236. Guerin's Gift; flowers vivid even rose, sometimes shaded with light purple, large and full; form, compact, perfect. Habit, branching; growth, vigorous. A beautiful Rose.
237. Guillaume Tell; flowers fresh rose, their circumference blush, very large (William Tell) and full; form, compact, perfect. Habit, branching; growth, robust. An abundant bloomer, and a first-rate show Rose.
Hébé; see Group IX. Hybrid French.
238. Helvetius; flowers rosy lilac, large and double; form, compact. A hybrid, probably between the Damask and French.
239. Henrion de P ansey ; flowers purple, large and full.
240. Hermione; flowers rose, of medium size, full.
241. Hersilie; flowers rose, spotted, of medium size, double.
242. Heureuse Surprise; flowers vivid rose, mottled, and shaded with purple and crimson, large and full; form, compact, perfect. Habit, erect; growth, vigorous.
243. Honneur de Flandre; flowers purplish lilac, the petals closing at their tops until full bloom, forming a perfect ball, large and full; form, globular. Habit, erect; growth, moderate.
244. Honneur de Montmorency ; flowers dark crimson purple, large and full; form, expanded, fine. Habit, branching; growth, moderate. A fine Rose.
245. Hooker's Seedling ; flowers delicate flesh, the outer petals imbricating soon after expansion, small and full; form, compact. Habit, erect; growth, vigorous. A pretty and distinct Rose.
246. Horace Vernet; flowers rose, large and full.
247. Hortense Beauharnais; flowers rose, their circumference rosy lilac, large and full; form, compact. Habit, erect; growth, vigorous.
Hypacea; see Group V. Provence.
248. Idalise; flowers deep rose, large and full.
249. Illustre Champion; flowers dark purplish crimson, very double; form, compact.
250. Ines de Castro; flowers delicate flesh, of medium size, full.
251. Infante; flowers rose, large and full.
252. Insigne Destekles; flowers lilac, marbled with white and rose, of medium size, full; form, reflexed. Habit, branching ; growth, moderate.
253. Ipsilanté ; flowers soft even rose, the summits of the petals slightly reflexed, and growing paler soon after expansion, large and full; form, compact, perfect. Habit, erect; growth, robust. A superb show Rose.
254. Isabella; flowers crimson, mottled and shaded with purple, of medium
size, full; form, compact, neat; the petals small, closely and regularly disposed (Ranunculus-like). Habit, erect; growth, moderate.
255. Isabella II.; flowers rosy red; form, cupped.
256. Isabella de Lorraine; flowers rose, spotted, paler in colour towards their circumference, large and full. Habit, branching; growth, small. Raised at Angers. Introduced in 1843.
257. Isoline; flowers rose, their circumference inclining to rosy lilac, large and full; form, compact. Habit, erect; growth, vigorous.
258. Jane Seymour; flowers lilac blush, their centre rose, large and full; form, compact, perfect. Habit, erect; growth, vigorous.
259. Jaunita: flowers lively rose, paler in colour towards their circumference, plentifully sprinkled with white dots, of medium size, full; form, expanded. Habit, branching; growth, moderate.
260. Jeme Maintiendrai; flowers fine rosy pink, large and very double, the petals broad and thick; form, expanded. Habit, branching; growth, robust. A pleasing and distinct Rose, therefore desirable. Raised at Montmorency. Introduced in 1846.
261. Jean Bart; flowers rose, spotted, of medium size, full. Raised at Angers. Introduced in 1844.
262. Jeanne d'Albret; flowers vivid rosy pink, paler at their circumference, very large and full; form, compact. Habit, branching; growth, moderate. A fine Rose. Introduced in 1843.
263. Jeanne de Laval; flowers brilliant rose, sometimes spotted, large and full; form, cupped. Introduced in 1843.
264. Jeanne Hachette; flowers reddish crimson, spotted, large and double. Introduced in 1842.
265. Jeanne d'Urfé; flowers rose and slate, shaded, the outer petals blush at their circumference, very large and full; form, cupped. Habit, branching; growth, vigorous. A superb show Rose. Introduced in 1841.
266. Jenny Vertpré; flowers reddish crimson, large and very double; form, compact.
267. Julie d'Etanges; flowers rosy lilac, their circumference inclining to blush, large and full ; form, cupped, perfect. Habit, erect ; growth, vigorous. Varies much as to quality; sometimes very beautiful. A hybrid, partaking a little of R. Alba. A good Rose for a pot.
268. Kean ; flowers rich velvety purple, their centre crimson scarlet, large and full; form, compact, perfect. Habit, branching ; growth, vigorous. A beautful Rose, worthy of a place in the most limited collection.
269. Kretly ; flowers violet, spotted with purple, of medium size, full. Introduced in 1844.
270. La Calaisienne; flowers pink, distinct, large and full; form, compact, perfect. Habit, erect; growth, vigorous.
271. La Capricieuse; flowers rose, occasionally striped with white, of medium size, full; form, compact.
272. La Dominante; flowers bright rose, of medium size, very double; form, compact.
273. La Fille de l'Air; flowers delicate flesh, large and full. Introduced in 1845.
274. La Fontaine; flowers lilac crimson, very large and very double; form, globular.
275. La Globuleuse; flowers dull purplish red, large and very double; form, globular. Habit, erect; growth, moderate. The flowers remain a long time in the bud state, perfectly closed at their summits, looking like a ball.
276. La Jeune Reine; flowers bright rose; form, cupped.

La Majesteuse; see La Moskowa.
277. La Moskowa; flowers dark velvety brownish crimson, of medium size, (La Majesteuse.) double. Habit, erect; growth, moderate. One of the darkest of Roses, and a very desirable variety, though scarcely double enough.
278. La Nationale; flowers bright rosy crimson, paler at their circumference,
(Nationale tricolore.) the ground colour growing paler and becoming mottled shortly after expansion, large and full; form, expanded. Habit, erect; growth, moderate.
La Rubanée; see Village Maid.
279. La Ville de Londres ; flowers deep rose, their circumference blush, very large and full; form, cupped, perfect. Habit, branching; growth, moderate. Very fine.
280. La Splendeur; flowers rosy crimson, mottled with purple, sometimes striped and edged with white, of medium size, full; form, compact. Habit, erect; growth, small. A beautiful Rose when in true character, but varies much, sometimes even to dark purple.
281. La Volupté ; flowers rose, slightly shaded with lilac, large and full; form,
(Letitia) cupped, the petals being exquisitely arranged. Growth, moderate. A superb show Rose.
282. La Venue; flowers purple and crimson, large and full; form, compact.
283. La Ville de Gand; flowers deep lively pink, their circumference inclining to lavender blush, large and full; form, expanded. Habit, pendulous; growth, small.
284. Lady Peel; flowers lilac rose, shaded, very double; form, compact.
(Duc de Baviére)
Lafayette; see Général Lafayette.
285. Latone; flowers rose, slightly mottled with slate, the summits of the petals
reflexing, very large and full; form, cupped. Habit, erect; growth, vigorous; foilage, large and fine. A good show Rose.
286. Latour d'Auvergne; flowers rosy crimson, sometimes inclining to purplish crimson, their centre vivid, large and full; form, cupped. Habit, erect; growth, moderate; foilage, dark and fine. A noble Rose. A good show Rose. Introduced in 1842.
287. Lavoisier; flowers lilac blush, their centres rosy pink, faintly sprinkled with white spots, of medium size, full; form, compact. Habit, branching ; growth, moderate; the leaves of a dark green, curiously variegated or blotched with yellow. Introduced in 1842.
Le Baron Louis; see Baron Louis.
Le Cordon Bleu; see Cordon Bleu.
288. Le Diable Boiteux; flowers clear rose, large and full.

Lee; see Belle Auguste.
Lee's Carnation ; see Carnation.
289. Léon X. ; flowers fine rose, their circumference inclining to lavender blush, very large and full; form, compact, perfect. Habit, branching; growth, vigorous. A bold Rose; and a good show Rose.
290. Leonea ; flowers bright rose, large and full; form, cupped.
291. Leonel Dumoustier; flowers pale rose, double; form, cupped.

Letitia; see La Volupté.
292. L'Hospital ; flowers reddish rose, spotted, of medium size, full.
293. Loisiel ; flowers reddish rose, very large and full.
294. Lord Byron; flowers reddish crimson, mottled with purple and blush, rather sombre looking, of medium size, very double; form, cupped. Habit, erect ; growth, small.
295. Louis Foucquier; flowers deep crimson, large; form, expanded.

Louis Philippe; see Grandissima.
296. Lucile Duplessis; flowers dark rose, spotted, of medium size, full.
297. Maculé de Montmorency; flowers rosy purple, sometimes edged, and occasionally mottled, with white, of medium size, double; form, expanded. Habit, erect; growth, moderate. A very pretty Rose when in true character. A good seed-bearer.
298. Madame Audiot; flowers lilac, their centre rose, very large and full; form, compact.
299. Madame Cottin ; flowers deep rose, their circumference changing to lilac (Sophie Cottin) blush, very large and full; form, expanded. Habit, erect; growth, vigorous.
300. Madame Damoureau; flowers deep reddish rose, large and very double; form, compact.
Madame Deshoulléeres; see Group IV. Damask.
301. Madame Dubarry; flowers crimson scarlet, shaded with dark crimson,
vivid, beautiful when newly opened, of medium size, full; form, expanded, petals reflexing before the flowers fall. Habit, branching; growth moderate.
302. Madame Duchesnois ; flowers blush, their centre pale rose, large and very double; form, cupped.
Madame Saudeur; see Group IX. Hybrid French.
303. Madelon Friquet; flowers rosy lilac, plentifully sprinkled with small white spots, small and full; form, compact. Habit, branching; growth, small. A very neat and pretty Rose. Introduced in 1842.
304. Mademoiselle Montessu; flowers flesh colour.
305. $\mathrm{M}_{\mathrm{AHL}}$; flowers carmine, large and very double ; form, cupped. (Mohl)
306. Malek Adel; flowers slate, large and very double; form, compact.
307. Malherbe (New); flowers clear purple, their centre bright red, very large and full. Habit, branching; growth, moderate.
308. Malherbe; flowers purple, spotted with crimson, large and full; form, compact.
309. Marceau ; flowers dark rose, spotted with pale rose, of medium size, full. Raised at Angers. Introduced in 1844.
310. Margaret $\mathrm{Mary}_{\mathrm{ary}}$; flowers purplish rose, their centre deep rose, large and very double; form, cupped.
311. Marguerite Lansezeur; flowers rosy blush, veined with red, paler towards their circumference, large and full; form, compact. Habit, erect; growth, moderate. A very showy Rose.
312. Marguerite de Valois ; flowers rose, very large and full; form, compact. Habit, branching; growth, moderate. A bold Rose.
313. Marie-Antoinette; flowers lilac rose, large and full.
314. Marie de Burgogne; flowers rose, spotted, very large and full.
315. Mariquita; flowers lilac rose, large and full.
316. Maritorne ; flowers deep rose, large and full.

Marjolin ; see Group X. Hybrid Chinese.
Marquise d’Alpré ; see Group V. Provence.
317. Matthieu Molé; flowers rosy crimson, mottled with purple, of medium size, full ; form, compact, perfect. Habit, erect; growth, moderate.
318. Marquis of Lothian ; flowers pale peach, their circumference blush, of medium size, full; form, expanded. Habit branching; growth, moderate. An abundant blooming variety.
Mathilde de Mondeville ; see Group V. Provence.
319. Mazeppa; flowers red, edged and marbled with white.
320. Mécène; flowers white, striped with rose, of medium size, double; form, compact. Habit, erect; growth, moderate, shoots very smooth. Raised at Angers. Introduced in 1845.
321. Medée; flowers blush, their centre pink; form, cupped.
322. Melanie; flowers even rose, lively, large, and full; form, compact, perfect. Habit, erect ; growth, moderate.
323. Melusine ; flowers slaty violet, of medium size, full.
324. Meuricie; flowers rose, large and full; form, globular.

Micalea; see Group IX. Hybrid French.
325. Minos ; flowers pink, mottled with white, large and very double; form, compact.
326. Modeste Guerin ; flowers rose, mottled with white, of medium size, full; form, cupped.
Монц; see Mahl.
327. Monime ; flowers reddish rose, spotted, of medium size, double. Raised at Angers. Introduced in 1840.
328. Monthyon ; flowers slaty rose, large and full; form, globular.
329. Moise; flowers rosy carmine, shaded with purplish slate, large and very double; form, expanded. Habit, erect; growth, moderate.
330. Myrsa ; flowers purplish rose, large and full.
331. Nannette; flowers rosy crimson, marbled with purple, of medium size, very double; form, cupped. Habit, erect; growth, moderate. A very pretty Rose, blooming later than others of the Group.
332. Napoleon ; flowers bright rose, shaded with purple, very large and double; the petals large and thick. Habit, erect; growth, robust ; foliage, bold and fine. A decided acquisition. Raised by M. Hardy, at the Jardin du Luxembourg. Introduced in 1846.
Nationale tricolore; see La Nationale.
333. Nausicá ; flowers rose, shaded, large and very double; form, globular.
334. Neala; flowers deep rose, paler at their circumference, of medium size, full.
335. Ne Plus Ultra ; flowers bright rose, very fine, large and full. Habit, branching; growth, moderate.
336. Néhala (Vibert); flowers purple, spotted with rose, small and double. Introduced in 1845.
337. Nelly ; flowers delicate flesh, wax-like, of medium size, full; form, cupped, perfect. Habit, erect; growth, moderate. A fine Rose.
338. Nelson ; flowers violet purple, marbled, of medium size, full. Introduced in 1840.
339. Nero; flowers chocolate, marbled with slate, their centre red sprinkled with chocolate spots, of medium size, full; form, cupped, the lower petals often turning back the flowers before falling, becoming inversely cupped. Habit, branching ; growth, vigorous. A singular and beautiful variety.
340. Nestor ; flowers crimson, large and full.
341. Neuvilee; flowers rose, shaded, large and very double; form, compact.
342. New Village Matd; flowers French white, striped with slate and rose, sometimes only one of the latter colours appearing, of medium size and double; form, compact. Habit, erect; growth, moderate. Raised at St. Frond, Belgium. Introduced in 1829.
343. Ninon de l'enclos; flowers dark rose, large and full. Identical with Jean Bart of some cultivators.
344. Noble cramoisie; flowers crimson, of medium size, full.

Nouvelle Bourbon ; see Nouvelle Provins.
345. Nouvelle Proviss; flowers crimson scarlet, vivid, sometimes shaded (Nouvelle Bourbon) with purple, the lower petals usually purplish crimson, of medium size, full; form, compact. Habit, branching; growth, moderate. A beautiful Rose.
Nouvelle Reine Marguerite; see Tricolor d'Orleàns.
346. Nouvelle transparente; flowers brilliant rosy crimson, large and full.
347. Oberlin ; flowers purplish crimson, shaded, of medium size, full; form, compact.
348. Ober Kempft; flowers lively rose, the lower petals shaded with violet, large and full; form, expanded. Habit, erect; growth, moderate. A showy Rose.
349. Octavie ; flowers light pink, their circumference blush, of medium size, full ; form, expanded, Habit, branching; growth robust. A very good Rose.
350. Оhl ; flowers violet purple, their centre brilliant red, large and full. Habit, branching; growth, robust. A fine show Rose.
351. Eillet flamand; flowers white, distinctly striped with rose and rosy lilac, large and very double; form, expanded. Habit, erect; growth, moderate. Raised at Angers. Introduced in 1845. A very desirable variety, producing its flowers more frequently true in character than the general run of striped Roses.
352. Eillet parfait; flowers pure white, distinctly striped with rosy crimson, the latter colour shaded with purple, of medium size, double; form, cupped. Habit, erect; growth, small. Beautiful when true, like a scarlet bizarre Carnation. Somewhat hybridized, partaking slightly of the Damask, Group IV.
353. Ombrée parfaite ; flowers violet, shaded, of medium size, full.
354. Omphale; flowers rosy pink, sometimes spotted with white, large and very double; form, cupped. Habit, erect; growth, moderate. The ground colour of this Rose is sweetly pretty and distinct.
355. Oracle du Siécle; flowers crimson purple, large and full; form, cupped. Growth, moderate. A good Rose.
356. Orpheline de Juileet; flowers crimson purple, sombre, the base of the
petals fiery red, the latter colour occasionally running out in streaks towards the circumference, large and very double; form, expanded. Habit, erect; growth, moderate. The effect produced by the contrast of colour in this variety is admirable.
357. Orphise; flowers even rosy crimson, colour lively, of medium size, full; form, compact. Habit, branching; growth, small.
358. Oriflamme; flowers rosy scarlet, shaded with purple, large and double; form, expanded. Habit, erect; growth, moderate. A showy Rose. A good seed-bearer.
359. Отно; flowers bright rose ; form, cupped.
360. Pamela; flowers rose, large, and very double; form, compact.
361. Paquita ; flowers violet, large and full.
362. Pashot; flowers light crimson, occasionally tinged with purple, large and full; form, globular. Habit, erect; growth, moderate or vigorous. A fine show Rose.
363. Penelope; flowers crimson.
364. Pergolèse; flowers purplish slate, their centre rich dark rose, large and full; form, compact, good. Habit, erect; growth, moderate. A desirable variety. Introduced in 1840.
365. Perle de Brabante; flowers lilac blush, their centre crimson, large and double; form, cupped.
366. Perles des Panachées; flowers white, striped with rose-colour, the marking very clear and distinct, of medium size, full; form, expanded. Habit, erect; growth, moderate. Raised at Angers. Introduced in 1845. One of the best of the striped Roses.

Petite Beauté; see Group IX. Hybrid French.
367. Pétrarque; flowers purplish crimson, of medium size, full. Introduced in 1844.
368. Pharericus; flowers light lively rose, occasionally shaded with dove, of
(Wariricus) medium size, full; form, compact, perfect. Habit, erect; growth, moderate. A beautiful Rose, and an abundant bloomer.
369. Phénice; flowers reddish rose, spotted, of medium size, full. Introduced in 1843.
370. Philipfe Foucquier; flowers rosy blush, large.
371. Piccotee; flowers purple, striped with crimson and white, small and full; (Pourpre strié de blanc) form, reflexed. Habit, branching; growth, small.
372. Pierre Ayrault; flowers crimson rose, large and double. Introduced in 1846.
373. Pierre Corneille; flowers lilac red, large and full; form, globular.

Pierre Jaussens; flowers scarlet, their circumference shaded with crimson purple, large and full; form, compact. Habit, branching; growth, moderate. A superb variety; very fiery in appearance.
(Div. II.)
374. Platine; flowers deep rose, of medium size, full.
375. Pluto; flowers blackish purple, large and full; form, cupped. Habit, branching; growth, moderate. A good Rose. Raised at Angers. Introduced in 1843.
376. Pomoné; flowers blush, their centre rose, very double; form, compact.
377. Porcelaine Royale; flowers purplish rose, striped with crimson and spotted with blush, of medium size, full; form, compact. Habit, erect; growth, moderate. An abundant bloomer and a showy Rose.
Pourpre stríe de blanc; see Piccotee.
Prince Albert; see Group X. Hybrid Chinese.
Prince d'Aremberg; see Duc d'Aremberg.
378. Prince Regent ; flowers bright rose, large and very double; form, cuppedHabit, erect; growth, moderate.
379. Princess Victoria ; flowers scarlet when newly opened, shot with crimson, the base of the petals purple, of medium size, double; form, expanded. Habit, erect; growth, moderate. A very showy Rose, but scarcely double enough to take any rank among modern varieties.
380. Pulchra Marmorea; flowers dark purple, marbled with reddish crimson, of medium size, very double; form, cupped. Habit, erect ; growth, moderate. A distinct and sometimes brilliant Rose.
381. Queen Adelaide; flowers dark velvety purple, large and full; form, compact. Habit, erect ; growth, moderate.
382. Quitterie; flowers rosy crimson, shaded with dark slate, the colours growing paler after expansion, very large and full; form, cupped. Habit, erect ; growth, moderate. Rather coarse.
383. Randolph; flowers lively pink, a few petals occasionally inclining to blush, very large and full; form, cupped, good. Habit, branching; growth, moderate. A beautiful Rose, and a fine show Rose.
384. Raucourt ; flowers reddish crimson, large and double; form, cupped.
385. Reboul ; flowers reddish crimson, large and full ; form, compact.
386. Reine des François; flowers rich rosy crimson, shaded with slate, very large and full; form, cupped, the lower petals slightly reflexing. Habit, pendulous; growth, vigorous. One of the most beautiful in the group.
387. Reine des Roses; flowers dark crimson, small.

Reine Marguerite; see Tricolor.
388. Rénoncule Ponctó; flowers rose, mottled with blush, and often edged with cherry, small and full; form, compact, becoming reflexed before the flowers fall, the petals regularly and closely disposed, Ranunculus like. Habit, erect; growth, vigorous. A neat and beautiful little Rose.
389. Rien ne me Surpasse; flowers lively rose, of medium size, full; form,
expanded. Habit, erect; growth, small. A pretty Rose; shows well on the tree.
390. Roi de Françors; flowers rosy crimson, shaded with purple, outer petals turning inwards, and being very regularly disposed, beautiful, of medium size, full ; form, cupped. Habit, branching; growth, small. A pretty Rose.

## Roi de Hollande; see Roi de Rome.

391. Roi de Naples; flowers rosy crimson, the lower petals marbled with blush, of medium size, full; form, compact, perfect. Habit, erect; growth, moderate.
392. Roi de Rome; flowers deep lively pink, of medium size, full; form, re(Roi de Hollande) flexed. Habit, erect; growth, moderate $\mathbf{A}$ very neat and pretty Rose.
393. Rosamonde; flowers pale rosy lilac, large and very double; form, compact.
394. Rosa Mundi; flowers white, striped with carnation, large and semi-double; form, expanded. Habit, branching; growth, moderate. An abundant seed-bearer, and the parent of most of the striped French Roses.
395. Rouge Admirable; flowers purplish red, large and very double; form, compact.
Rouge Éblouissante; see Assemblage des Beautés.
396. Rouget de L'Isle; flowers blush, mottled with flesh, of medium size, full; form, cupped. Habit, erect; growth, moderate. A distinct and pretty Rose. Introduced in 1843.
397. Royale Marbrée; flowers red and purple, marbled, of medium size, full.
398. Sanchette; flowers even rose, very large and full ; form, cupped, exquisite. Habit, erect; growth, robust. A noble Rose.
399. Sancho Pança; flowers rosy peach when newly opened, changing to dove-colour, large and full; form, expanded; petals, thick. Habit, erect; growth, moderate. Raised at Angers. Introduced in 1844.
400. Schismaker; flowers dark clouded purple, rich and velvety when newly opened, large and very double; form, globular. Habit, erect; growth, moderate. A distinct Rose.
401. Schönbrun; flowers bright crimson, of medium size, very double; form, cupped, perfect. Habit, erect; growth, small.
402. Schrymaker; flowers rich deep rosy pink, glowing, large and very double; form, cupped. Habit, erect ; growth, vigorous; foliage, glossy and fine. A beautiful Rose, producing a charming effect on the tree.
403. Scipio; flowers deep crimson; form, cupped, perfect. A fine show Rose.
404. Séguier; flowers violet purple, spotted with red, of medium size, full. Sephora; see Group IX. Hybrid French.
405. Shakspeare; closely resembles Kean, if not the same.
406. Silliste de Kersabiac; flowers lilac crimson, large and full; form, compact.
407. Sidonie; flowers blush; form, cupped.
408. Simon Lebouck; flowers red, paler in colour and very clear at their circumference, of medium size, full.
409. Sir Walter Scott; fowers purplish rose, large and double; form, compact.
410. Sobieskii ; flowers crimson and purple shaded, very large and full; form, compact.
411. Sky ; flowers purple and rose shaded, of medium size, full; form, reflexed. Habit, erect; growth, small.
412. Sgur Hospitaliere; flowers violet shaded, of medium size, full.
413. Soliman ; flowers rose, often marbled with purple, the lower petals gradually growing paler after expansion, large and full; form, expanded, perfect. Habit, erect; growth, vigorous. A beautiful Rose, drawing towards the Hybrid French (Group IX).
Sombreull; see Group IX. Hybrid French.
Sophie Cottin ; see Madame Cottin.
414. Sophie Duval; flowers rose, shaded with lilac and violet, very large and full; form, compact, perfect. Habit, erect; growth, robust. A fine show Rose.
415. Sophie d'Helemne; flowers creamy white.
416. Souvenir de Navarino ; flowers rosy, very large and full; form, expanded. Habit, erect ; growth, vigorous. A showy Rose, but coarse.
417. Souverain ; flowers rosy lilac, large and full; form, expanded.
418. Stratonice ; flowers deep rose, spotted, of medium size, full. Introduced in 1845.
Superb Crimson; see Apollo.
Superb Marbled; see General Damrémont.
419. Superb Tuscany; flowers dark purple, mottled with crimson, of a rich velvety appearance, very large and double; form, expanded. Habit, branching; growth, moderate.
420. Surpasse Tout; flowers rich rosy crimson, sometimes shaded with purple, even, beautiful, large, and full; form, cupped. Habit, erect; growth, moderate. A fine Rose; very handsome on the tree.
421. Suzanne; flowers rosy lilac, blooming in small clusters, small and full; form, cupped, perfect. Habit, branching; growth, moderate. A neat and very pretty little Rose, and an abundant bloomer. Raised in the south of France.
422. Tamerlane; flowers carmine, large and very double; form, cupped.
423. Télémaque; flowers light red, shaded with purple, large and full; form, expanded. Habit, erect; growth, vigorous.
424. Temple of Apollo; flowers light vivid crimson, shaded with purple, large and double; form, expanded. Habit, erect; growth, moderate. A very showy Rose.

Téolinde; see Théodolinde.
425. Thalia; flowers deep rose; form, cupped.
426. Théagene; flowers crimson and purple shaded, their centre lively rose, of medium size, full; form, compact. Habit, branching; growth, moderate.
427. Thélésille; flowers crimson purple, of medium size, full. Raised at Angers. Introduced in 1845.
428. Théodolinde; flowers brilliant rose, large and full; form, cupped.
(Téolinde)
429. Thésarin ; flowers red, their circumference violet, of medium size, full.
430. Tibulle; flowers bright rosy crimson, shaded with slate, varies much both as to colour and quality, very large and full; form, compact. Habit, erect; growth, vigorous. A distinct and pretty Rose.
431. Timarette; flowers purplish rose, spotted, of medium size, full.
432. Tom Jones; flowers brilliant rose, very large and full.
433. Transon Gombault; flowers red, clear and pale at their circumference, large and full.
434. Trésorier ; flowers scarlet, shaded and streaked with dark purple, glowing, of medium size, very double; form, expanded ; sometimes beautiful. Habit, erect ; growth, moderate.
435. Tricolor ; flowers brilliant crimson and purple, shaded and mottled, with a (Reine Marguerite) streak of cream tracing the centre of each petal, of medium size, double; form, expanded. Habit, erect; growth, moderate. A distinct and pretty Rose.
436. Tricolor, No. 1 ; flowers rose, edged with white, of medium size, double. Introduced in 1841.
437. Tricolor, No. 2.
438. Tricolor, No. 3; flowers violet brown, marbled with red, of medium size, double.
439. Tricolor, No. 4; flowers violet purple, spotted, of medium size, double. Raised at Angers. Introduced in 1844.
Tricolore de Wazemmes; see Tricolore Superbe.
440. Tricolore de Flandre; flowers white, striped with crimson, lilac, and amaranth, of medium size, full. Raised at Gand in 1844. Introduced in 1846. This variety is spoken very highly of on the Continent, but has not, as far as we know, bloomed in England.
441. Tricolore d’Orleans; flowers reddish purple, striped with white; form, (Nouvelle Reine Marguerite) expanded.
442. Tricolore Pompon; flowers rosy crimson, edged with cream, a band of the latter colour tracing the centre of each petal, the ground colour changing to crimson purple soon after the flowers expand, small and semi-double; form, expanded. Habit, erect; growth, small.
(Div. II.)
443. Tricolore Superbe; flowers crimson purple, with creamy white stripes, (Tricolore de Wazemmes) small and double; form, expanded.
444. Triomphe des Beautés; flowers crimson scarlet, shaded and mottled with purple, of medium size, very double; form, expanded. Habit, erect; growth, moderate. An abundant bloomer, and a showy Rose.
445. Triomphe de Brabant; flowers peach, of medium size, full; form, compact. Habit, branching ; growth, robust. A distinct variety.
446. Triomphe de Flore; flowers delicate rose, of medium size, full.
447. Triomphe de Jaussens; flowers vivid rosy crimson, shaded with purple, of medium size, full; form, cupped, perfect. Habit, branching; growth, moderate. A beautiful Rose.
448. Triomphe de Parmentier; flowers violet, shaded at their circumference, large and full.
449. Triomphe de Pennes; flowers lively rose, marbled with slate, very large and full ; form, expanded. Habit, erect; growth, robust. A showy and beautiful Rose.
Triomphe de Rouen ; see Group IV. Damask.
450. Triomphe de Zehler; flowers slate, of medium size, double.
451. Tullie; flowers deep rose, marbled, large and double.
452. Turenne; flowers rose, large and full. Introduced in 1846. Raised at Angers.
453. Tuscany ; flowers blackish crimson, velvety, large and semi-double. Habit, erect; growth, vigorous.
454. Uniflore Marbrée; flowers lively rose, the inner petals thinly, the outer petals thickly sprinkled with white spots, of medium size, double; form, expanded. Habit, erect; growth, moderate.
455. Validatum; flowers violet purple, large and full.

Valmore Desbordes; see Group IX. Hybrid French.
456. Vandyee; flowers rose, very large; form, cupped.
457. Venus; flowers lilac flesh, large and full.
458. Venus de Medicis; flowers rose, their circumference of a rosy blush.
459. Vesta ; flowers scarlet, large and semi-double; form, expanded. A brilliant and showy Rose, but rather loose.
460. Victolpe de Waterloo; flowers lilac, large and semi-double; form, (Waterloo) cupped.
461. Village $\mathrm{M}_{\text {aid }}$; flowers white, striped with rose and purple, the stripes (La Rubanée) varying in breadth, sometimes the one and sometimes the other colour preponderating, large and full; form, cupped. Habit, pendulous; growth, small. A beautiful Rose when displayed in true character, which is rather rare.
Village Maid, New ; see New Village Maid.
462. Villageoise Parée; flowers light crimson, very double.
463. Violet Cremer; flowers rosy crimson, beautifully shaded with violet purple, of medium size, very double; form, expanded, the petals regularly and beautifully disposed, slightly reflexing soon after expansion. Habit, erect; growth, moderate.
464. Violet Incomparable; flowers slate and crimson shaded, large and very double; form, compact.
465. Virginie; flowers rose, large and full; form, cupped.
466. Vitruvius; flowers even pink, of medium size, full ; form, cupped. Habit, branching ; growth, moderate. A beautiful Rose; the petals of the flowers fine.
Wariricus; see Pharericus.
467. Washington ; flowers crimson, marbled with violet purple, of medium size, full ; form, cupped.
Waterloo; see Victoire de Waterloo.
468. Wellington; flowers crimson purple; form, cupped.

William Tell; see Guillaume Tell.
469. William the Fourth; flowers lively red, their edges lilac blush, large and full; form, expanded. Habit, pendulous; growth, moderate. A showy Rose.
470. Zenaide Delezenne; flowers bright rose, large; form, cupped.
471. Zumalacarreguy; flowers even rose, changing to lilac blush, sometimes striped with white after expansion, of medium size, double; form, expanded. Habit, branching; growth, moderate.

ROSA GALITCA.
Group IX.-HYBRID FRENCH, commonly called HYBRID PROVENCE.
This Group resembles the last more nearly than any other, and for that reason we term them Hybrid French. Their growth is less robust than that of the true French: the shoots are less knotty, and the wood is usually of a pale green. The eyes are in many cases formed on the shoots at very short distances from each other. The flowers are mostly light coloured, and are remarkable for their beauty and purity of appearance. As a Group, they are rising into favour ; and it might have been expected that they would do so, for they are, in every respect, beautiful Roses.

It has appeared to us advisable to place in this Group the names of all the varieties which other authorities view as Hybrid Provence; but we give the names only of such, referring the reader to the Group to which we consider them properly to belong for their descriptions. By this plan it will be shown which are considered Hybrid Provence by other cultivators.

The varieties of this Group are hardy, requiring no particular treatment, and flourishing equally well whether grown as Standards or Dwarfs.

1. Alette ; flowers of a pinkish blush, their circumference white wax-like, large and full ; form, globular. Habit, erect; growth, moderate. A beautiful Rose. Introduced in 1845.
Adèle de Sénange; see Group V. Provence.
Adèle Prevost : see Group VIII. French.
Adéline; see Group V. Provence.
Agnes Sorrell; see Group VIII. French.
2. Aimable Tastu ; flowers delicate rose, large and full.

Alain Blanchard; see Group VIII. French.
Alphonse Maille; see Group X. Hybrid Chinese.
Anais Segalas; see Group V. Provence.
3. Angiola; flowers white, of medium size, full. Raised at Angers. Introduced in 1846.
Antonine d'Ormors; see Group VIII. French.
4. Anna Kzartoryska; flowers purplish red, spotted, large and full. Introduced in 1845.
5. Aspasie; flowers beautiful flesh, changing to blush after expanding, of medium size, full; form, cupped, perfect. Habit, erect; growth, moderate. A most abundant bloomer.
6. Attala ; flowers flesh-coloured white, large and full. Introduced in 1845. Belle Portugaise; see Group V. Provence.
7. Blanche de Castille; flowers delicate flesh, of medium size, full.
8. Blanchefleur; flowers white, slightly tinged with flesh, large and full; form, compact, perfect. Habit, erect; growth, moderate. An abundant and early bloomer; very beautiful on the tree. A good Pot Rose.
9. Blandine; flowers white, large and double; form, globular. Raised at Angers. Introduced in 1846.
10. Boule de Neige; flowers creamy white, of medium size, full; form, globu-
(Globe White Hip) lar. Habit, erect; growth, small. An abundant and early bloomer. Very pretty.
Celestine; see Group VIII. French.
Celinette; see Group VIII. French.
Christine de Pisan; see Group V. Provence.
11. Clarisse Jolivet ; flowers pure white, large and full.
12. Clelie; flowers rosy blush, very large and very double; form, expanded. Habit, erect; growth, robust. A showy Rose.
13. Cleopatra; flowers salmon pink, of medium size, full; form, compact, perfect. Habit, erect; growth, moderate. A beautiful Rose.
Clemence Isaure; see Group VIII. French.

Colonel Coombs; see Group VIII. French.
Comtesse de la Roque ; see Group V. Provence.
Comtesse Plater; see Group X. Hybrid Chinese.
14. Corinne; flowers rose, of medium size, full ; form, globular.

Délices de Flandres; see Group V. Provence.
Désiré (Parmentier); see Group VIII. French.
15. Devigne; flowers of a pinkish blush, of medium size, full; form, compact, perfect. Habit, branching; growth, moderate.
16. Dubois Dessauzais; flowers soft pink, the back of the outer petals nearly
(Eugénic Dubois Dessauzais) white, large and very double; form, cupped, exquisite. Habit, branching, good growth, vigorous; foliage, fine. A first-rate Rose, though occasionally poor. Introduced in 1843.
Duc d'Angoulême; see Group V. Provence.
Duc de Chorseuil ponctú ; see Group V. Provence.
Duchess of Kent; see Group VIII. French.
17. Duchesse d'Angoulème; flowers blush, their centre pink, wax-like, of medium size, full; form, cupped. Habit, erect; growth, moderate. This variety is often called the Wax Rose, and is very beautiful, though not adapted for exhibition.
18. Duchesse d'Orleans; flowers flesh, wax-like, large and full; form, cupped, the summit of the petals slightly reflexing. Habit, erect; growth, moderate.
Eliza Fleming or Fenning; see Group VIII. French.
Eliza Lecker; see Group V. Provence.
19. Emérance; flowers cream, their centre pale lemon, the petals smooth and of even form, of medium size, full; form, cupped. Habit, erect; growth, moderate. A beautiful and distinct Rose.
Enchantress; see Group VIII. French.
20. Eulalie Lebrun ; flowers white, striped with rose and lilac, of medium size, full. Raised at Angers. Introduced in 1844.
Eugénie Duboys Dessauzais; see Duboys Dessauzais.
Foliacée; see Group V. Provence.
21. Flora; flowers flesh-colour, of medium size, full.

Général Foy ; see Group VIII. French.
Globe White Hip ; see Boule de Neige.
Globe Hip, New Double; see New Globe Hip.
Glory of France; see Group VIII. French.
22. Glycere; flowers white, tinged with flesh, of medium size, full. Raised at Angers. Introduced in 1845.
Grand Sultan ; see Group VIII. French.
Нébé; see Group X. Hybrid Chinese.
Hypacia; see Group V. Provence.

Illustre Beauté; see Celestine, Group VIII. French.
Ines de Castro ; see Group VIII. French.
Jeanne d'Urfé; see Group VIII. French.
23. Joséphine Oudin ; flowers creamy white, of medium size, very double; form, cupped. Habit, erect; growth, moderate.
24. L'Admirable; flowers flesh-colour, of medium size, full.

La Calaisienne; see Group VIII. French.
La Fiancée; see Group V. Provence.
La Fille de l'air; see Group VIII. French.
25. La Sylphide; flowers rosy blush, the edges of the petals white, slightly reflexing after expansion; of medium size, full; form, cupped. Habit, branching; growth, moderate. A neat and pretty Rose.
Latour d'Auvergne; see Group VIII. French.
Laura ; see Group V. Provence.
26. La Vallière; flowers flesh-colour, large and full. Introduced in 1846.
27. La Vestale; flowers sulphur-white, of medium size, full; form, cupped, perfect. Habit, erect; growth, moderate. The branches quite smooth in places. An elegant Rose.
La Ville de Londres; see Group VIII. French.
La Volupté; see Group VIII. French.
Le Grand Triomphe; see Group V. Provence.
Letitia ; see La Volupté, Group VIII. French.
Leiponicella; see Lady Stuart, Group X. Hybrid Chinese.
28. L'Ingende; flowers creamy white, of medium size, double; form, cupped. Habit, branching; growth, moderate; foliage of a pale green.
29. Lisbeth; flowers delicate blush, of medium size, full; form, cupped. Habit, branching; growth, moderate. A pretty Rose.
30. Louis Lecker; flowers beautiful blush, large and full; form, expanded. Habit, erect; growth, moderate.
Madame Audot; see Group XIII. Alba.
Madame Campan; see Group XIII. Alba.
Madame Henriette; see Group V. Provence.
Madame Huet; see Group V. Provence.
Madame L'Abbex; see Group V. Provence.
31. Madame Saudeur ; flowers delicate flesh, of medium size, full.
32. Marguerite deValois (Vibert); dark rose, large and full. Introduced in 1843.

Mathilde de Mondeville; see Group V. Provence.
33. Melanie $W_{\text {aldor }}$; flowers paper-white, of medium size, full; form, cupped. Habit, erect; growth, moderate.
34. Micalea; flowers delicate blush, shaded with pink, of medium size, very double; form, compact. Habit, erect; growth, moderate. A neat Rose, and an abundant bloomer.
35. Mns. Rivers; flowers deep blush, their circumference almost white, large and full ; form, cupped. Habit, branching ; growth, vigorous. Nero ; see Group VIII. French.
36. New Globe Hip; flowers white, tinged with lemon, of medium size, very (Globe Hip, New Double) double; form, cupped. Habit, erect; growth, small. Nicolette; see Group V. Provence.
37. Novalinska ; flowers delicate rose, of medium size, full.
38. Odette de Chadipdivers; flowers pale rose, marbled and spotted with white, of medium size, double; form, expanded. Habit, branching; growth, moderate.
39. Pauline Garcia; flowers creamy white, large and very double; form, cupped. Habit, erect; growth, moderate. A beautiful Rose. Introduced in 1844.
40. Petite Beauté; flowers delicate flesh, their circumference blush, of medium size, full; form, cupped. Habit, erect ; growth, moderate.
Pierre Ayrault; see Group VIII. French.
41. Pompon de Iaqueue; flowers salmon rose, the base of the petals strawcolour, of medium size, full; form, cupped. Habit, erect; growth, moderate. A distinct and beautiful Rose.
42. Princesse Clementine; flowers paper-white, of medium size, full; form, compact, perfect. Habit, erect; growth moderate or vigorous. A very fine White Rose. Introduced in 1842.
43. Reine des Belges ; flowers pure white, of medium size, full; form, compact. Habit, erect; growth, small.
44. Rosemary; flowers rose, spotted, large and full. Introduced in 1842.

Roi de Pays Bas; see Group V. Provence.
Salmacis; see Group V. Provence.
4.5. Semilasso ; flowers reddish rose, spotted, large ; form, cupped.
46. Séphora; flowers flesh-colour, large and full. Introduced in 1843.
47. Sextus Popinius ; flowers rosy pink, cupped, large and full. Habit, erect; growth, vigorous. Introduced in 1842. A curious Hybrid, with singular foliage.
48. Sombreull; flowers deep pink, their circumference rosy blush, plentifully sprinkled with white spots, of medium size, full; form, expanded. Habit, erect ; growth, small.
49. Stradella ; flowers rose, of medium size, full. Introduced in 1844. Sulkowskir; see Group V. Provence.
50. Théodora; flowers rose, of medium size, full. Anemone shaped.
51. Valmore Desbordes; flowers delicate flesh, almost blush, large and full.
52. Venus; flowers rose-colour, large and full. Introduced in 1845. Wilberforce; see Group V. Provence.

## ROSAGAIIICA.

## Group X.-HYBRID CHINESE.

The Hybrid Chinese Roses have originated from the French and the Provence crossed with the Chinese; or vice versî: they are, therefore, Hybrids. Although called Hybrid Chinese, they partake more intimately of the nature of the French and Provence Roses than of that of their Chinese parent: we therefore arrange them under Rosa Gallica. One feature in particular has conduced to this: they bloom only in June and July; whereas the Chinese are the most protracted bloomers, flowering constantly from June till November. But besides this, they resemble the French Roses more nearly than any other Group, and the unpractised eye might confound the two, were it not for certain marks in habit and flowering, which we will now endeavour to point out.

The Group "Hybrid Chinese" of some Catalogues includes more than the name seems to imply: it embraces those Varieties, also, whose parentage on the one side is of the Noisette and Bourbon. In our arrangement they stand divided into three Groups; namely, Hybrid Chinese, Hybrid Noisette, and Hybrid Bourbon; the first of which is the one now under consideration.

The Hybrid Chinese differ from the French Roses in their growth, which is more diffuse; in their foliage, which is usually smooth, shining more or less, and retained on the tree later in the year; in their thorns, which are larger, and usually more numerous; and in their flowers, which are produced in larger clusters, whose petals are less flaccid, and which remain in a perfect state a longer time after expansion. These Hybrids are more vigorous in growth than either of their parents, and are in their nature very hardy. There are, therefore, none better for planting in unfavourable situations, or where the soil is poor.

They require but little pruning, especially the vigorous growers. The heads should be well thinned out in November, and the shoots shortened in to from six to twelve eyes in March. We here allude to the mass only. There are some few which require closer pruning: such are Coupe d'Amour, Général Allard, and all those which are particularized in the descriptions as of moderate growth.

To the cultivator of Roses for exhibition the Hybrid Chinese are altogether indispensable, frequently concentrating in the same flower perfection in the desired points of size, form, and fulness. There is also found among them almost every shade of colour. To those who plant Roses chiefly with the view of ornamenting the flower-garden, or to produce effect by masses of flower, there are perhaps none so well adapted to ensure the perfecting of their design, as very many of them form large-headed trees of elegant growth, producing their brilliant-coloured flowers in gorgeous abundance. It is advisable to select these Roses on stems rather above the average height: they are mostly of a pendulous habit, and, when budded on tall stems, the flowers droop gracefully, and are displayed to great advantage.

The kinds denominated vigorous form the best of Summer-flowering Pillar Roses. They will grow from four to ten feet in the course of a year, they bloom freely when established, and are well clothed with handsome foliage.

1. Adèle Bécar; flowers superb bright rose, petals imbricated, large and full. Raised by M. Laffay of Bellevue. First offered for sale in the autumn of 1847.
2. $\grave{\text { A fleurs blanches ; flowers white, of medium size, full. }}$
3. Ajoline; flowers clear rich rose, large and double; form, cupped; very showy. Foliage of a pale green.
4. Alphonse Maille; flowers vivid crimson, shaded with purple and spotted with light red, large and double; form, expanded. Habit, erect; growth, vigorous. A showy and beautiful Rose, partaking in a small degree of the Provence (Group 5.)
5. Alzire ; flowers deep rose, of medium size, full.
6. Amiral de Rigny; flowers clear lilac, of medium size, full.
7. Anacréon ; flowers bright rose, of medium size, full; form, cupped, fine.
8. Ancelin ; flowers even rosy crimson, large and full ; form, cupped. Habit, branching; growth, vigorous, the shoots of a whitish green, armed with a few broad thorns. A curious hybrid, probably between R. INdica and R. Turbinata, evidently possessing some of the features of the latter species.
9. Antonica ; flowers blush, their centre rose, of medium size, full; form, compact. Habit, branching; growth, vigorous.
10. À odeur d'Anisette; flowers rose, of medium size, double. Raised at Angers. Introduced in 1842.
11. À odeur de Pate d'Amande; flowers light rosy carmine, of medium size, double; form, cupped; very showy. Habit, branching; growth, moderate. A peculiarly scented and very distinct variety.
À petals frangées; see Fimbriata.
12. Archevêque de Besançon; flowers deep rose, with a rich purplish tint, large and full ; form, compact. Habit, pendulous; growth, vigorous. This variety requires but little pruning.
13. Ahasuerus; flowers crimson scarlet, brilliant when newly opened, often becoming marbled with violet crimson, presenting then a richer though less brilliant appearance, of medium size, full; form, compact. Habit, branching; growth, moderate. A showy Rose, producing a grand effect on the tree.
14. Astéroide ; flowers violet purple, of medium size, very double.
15. Aurora; flowers light lively crimson, sometimes shaded with violet, a ray of white often tracing the centre of the petals, large and double; form, cupped. Habit, branching; growth, moderate, forming a closer and more compact bush or tree than the gencral run of these. A very
showy Rose; the tree most beautiful viewed en masse. A good seedbearer.
16. Auzou; flowers carmine, marbled with purple, their centre sometimes
(Couture) crimson, of medium size, full; form, compact. Habit, branching; growth, vigorous.
Beauté Vive; see Group VIII. The French Rose.
17. Beauty of Billiard; flowers vivid scarlet, colour splendid, of medium
(Docteur Billard) size, full ; form, compact. Habit, pendulous; growth moderate; shoots slender. Forms a handsome drooping standard, but is scarcely free enough in growth for a Weeping Rose. Blooms later than most others of the Group. Requires but little pruning.
18. Becquet; flowers dark carmine, marbled with crimson purple, of a whitish cast towards the centre of the flower, glowing, of medium size, full ; form, expanded. Fabit, branching; growth, moderate; shoots very spinous.
19. Belle Courtisane; flowers flesh, their circumference blush, of medium size, full; form, compact. Habit, erect; growth, vigorous.
20. Belle de Vernier; flowers rosy crimson, marbled with dark purplish slate, more slaty towards their circumference, of medium size, full; form, cupped. Habit, erect ; growth, moderate.
Belle de Parny; see La Teuterelle.
Belle de Rosny ; see Group XI. Hybrid Noisette.
21. Belle d’Yvry; flowers rosy lilac, tinged with purple, large and full.
22. Belle Ferroniére; flowers delicate rose, their centre red, very large and full. A handsome Rose on the tree.
23. Belle Heloise; flowers lilac pink, veined with rose, their centre sometimes altogether rose, large and full. Habit, branching; growth, vigorous. Raised by M. Laffay of Bellevue.
24. Belle Marie; flowers fine rose colour, their circumference changing paler soon after expansion, large and full; form, cupped. Habit, branching; growth, vigorous. A fine Show or Pole Rose.
25. Belle Parabere; flowers rosy lilac, large and double; form, globular.
26. Belle Thurette; flowers crimson, shaded with purple, very velvety, small and full; form, expanded. Habit, branching; growth, vigorous. A distinct and pretty Rose, well suited for either a Weeping or Pillar Rose.
Béranger; see Group XI. Hybrid Noisette.
27. Blairif, No. 1; flowers bright rose, sometimes tinged with lake, large and semi-double; form, cupped. Raised at Stamford Hill, near London, a few years since, by Mr. Blair : hence its name. Habit, branching; growth, vigorous; liable to injury from severe frost.
28. Blairir, No. 2; flowers rosy blush, very large and double. Habit,
branching; growth, vigorous; foliage, fine. One of the largest of Roses, and one of the freest growers, often attaining to ten or twelve feet in one season. Hardier than the preceding variety. A fine Wall or Pillar Rose.
29. Bonne Geneviéve; flowers deep purple, their centre bright red, of medium size, full; form, compact. Habit, erect; growth, vigorous, but slender. Raised by M. Laffay of Bellevue.
Bovquet blanc; see Group XI. Hybrid Noisette.
30. Brennus; flowers light carmine, large and full; form, cupped. Habit, branching; growth, vigorous; foliage, fine. A superb Rose, whether for a standard or a pillar, and a good show Rose. Raised by M. Laffay of Bellevue.
31. Brown's Superb; flowers rosy red, their circumference blush, very large and very double; form, globular. Habit, branching; growth, vigorous. Occasionally good, but not to be depended on. This is classed as a Hybrid Bourbon by some growers, for what reason I do not know. I have heard it stated that it was raised at Slough, between the blush Odorata and a variety of the French Rose. Certainly it was under cultivation long before the Bourbon Rose was known.
32. Camizet carnée; flowers peach colour, large and double; form, cupped, fine. Habit branching; growth, small. A free bloomer, and a lively and distinct Rose, flowering occasionally in the autumn.
33. Camuzet nouvelle; flowers bright rose.
34. Caroline Walner; flowers of the most delicate rose colour, of medium size, full ; form, cupped.
35. Carré de Boisjeloup ; flowers slate colour, of medium size, full; form, expanded.
36. Celestial; flowers rosy crimson, marbled and shaded with crimson purple, large and double; form, cupped. Habit, branching ; growth, moderate.
37. Charles Foucquier; flowers reddish crimson, their circumference inclining to lilac; form, globular. Habit, branching; growth, vigorous. A fine Rose.
38. Charles Louts; flowers rosy carmine, large and full ; form, cupped. Habit, branching; growth, moderate. Sometimes fine, but produces too often a green bud in the centre of the flower.
39. Charles Louis, No. 2; flowers rosy blush, small and full; form, compact. Сbátelain; see Group XII. Hybrid Bourbon.
40. Chénédolé; flowers light vermilion, very large and very double; form, cupped. Habit, erect ; growth, most vigorous ; shoots, very spinous. A superb Rose for a pillar; a good seed-bearer; and one of the most attractive Roses grown.
41. Chévrier; flowers violet purple.

Coccinea Superba; see Vingt-neuf Juillet.
42. Colbert ; flowers purplish red, of medium size, full. Raised at Angers. Introduced in 1846.
43. Colonel Fabvier; flowers bright rose, large and full; form, cupped.
(Fabvier) Habit, erect; growth, moderate. A good Rose.
44. Comte Coutard; flowers lilac rose, large and full; form, compact.
(Coutard) Habit, pendulous; growth, moderate. An abundant bloomer, and a good Rose.
Comtesse de la Roque; see Group V. The Provence Rose.
45. Comtesse de Montalivet; flowers light crimson, shaded with dark slate, of medium size, full; form, cupped. Habit, branching; growth, vigorous.
46. Comtesse de Lacépède; flowers silvery blush, their centre sometimes rosy flesh, large and full; form, cupped, delicately beautiful. Habit, branching; growth, moderate. A good Rose, partaking somewhat of the nature of the Hybrid French (Group IX). A fine Rose for a pot.
47. Comtesse Plater; flowers creamy white, their centre tinted with flesh, large and full; form, cupped. Habit, branching; growth, moderate; foliage pretty. Raised at Angers. Introduced in 1842. A superb Rose, partaking somewhat of the nature of the Hybrid French (Group IX).
48. Conspicua; flowers rosy crimson ; form, cupped. Habit, robust.
49. Coronation ; flowers purple, shaded, full ; form, compact.
50. Corvisard; flowers bright crimson, shaded with purple, large and full; form, cupped.
51. Coupe d'Amour; flowers bright salmon rose, of medium size, full; form, cupped, exquisite. Habit, branching; growth, moderate. A fine Rose for a pot.
Coutard; see Comte Coutard.
Couture; see Auzou.
52. Cymodocée; flowers delicate rose, large and full. Raised by M. Laffay of Bellevue.
53. Dandigné de la Blanchaie; flowers dark slaty purple, their centre vivid crimson, of medium size, full; form, expanded. Habit, branching; growth, moderate; foliage, very dark.
54. Decandolle; flowers crimson scarlet, vivid, large, and semi-double; form, cupped. Habit, branching; growth, vigorous. A good and showy Pillar Rose.
55. Delâage ; flowers crimson purple, of medium size, full.
56. Descartes; flowers violet purple, velvety, of medium size, full. Raised at Angers. Introduced in 1846.
Deuil du Maréchal Mortier; see Maréchal Mortier.

Docteur Billiard; see Beauty of Billiard.
57. Docteur Guepin ; flowers violet purple, large and full.
58. Duc de Chorseul; flowers bright red, striped with light rose, paler at their circumference, large and full.
Dúc de Richelieu; see Richelieu.
59. Duchesse de Montebello; flowers rosy pink, changing to flesh pink, of medium size, full; form, compact. Habit, erect; growth, moderate. Almost a French Rose. Raised by M. Laffay of Bellevue.
60. Duke of Devonshire; flowers rosy lilac, striped with white, the summits of the petals slightly reflexing after expansion, large and double; form, cupped, fine. Habit, branching; growth, vigorous. An abundant bloomer, and very showy; requires but little pruning. Raised by M. Laffay. A free seed-bearer.
61. Duke of Sussex ; flowers cherry red, large and full; form, compact. Habit, branching; growth, robust. Occasionally fine. Raised by M. Laffay of Bellevue.
62. Duvivier ; flowers crimson, veined with rose.
63. Egeria ; flowers rich carmine, sometimes of a purplish tint, of medium size, full; form, cupped. Habit, branching ; growth, moderate. A peculiar Hybrid, with foliage of a pale green, glossy, large, and fine.
64. Elisa Renou; flowers delicate flesh, large and full; form, cupped. Habit, branching; growth, vigorous; shoots, thin.
65. Emperor Probus; flowers deep lilac red, large and very double; form, cupped. Raised by M. Laffay of Bellevue.
66. Ernest Ferray ; flowers red, large and full. Habit, erect; growth, robust.
67. Euphrosyne; flowers delicate flesh colour, large and full.
68. Evêque d'Angers ; flowers dark red, large and full.
(Montault)
69. Eynard; flowers light cherry, the petals closely set and twisted, presenting an unusual and a pretty appearance, of medium size, full; form, cupped. Habit, branching; growth, vigorous.
Fabvier; see Colonel Fabvier.
70. Ferdinand the First; flowers purplish lilac, very large and full. Raised by M. Laffay of Bellevue.
71. Fimbriata; flowers vivid red, the petals serrated at their circumference,
( $\grave{A}$ petals frungécs) presenting a novel and beautiful effect, of medium size, very double; form, expanded. Habit, branching; growth, moderate. Raised by M. Jacques, gardener at the Chateau de Neuilly. Introduced in 1831.
Fleurette; see Group XI. Hybrid Noisette.
72. Flora M‘Ivor; flowers soft pink, tinged with lilac, their circumference inclining to blush, large and full; form, cupped. Habit, branching; growth, moderate. Raised by M. Laffay of Bellevue.
(Div. II.)

We will exemplify this by the aid of the following engravings. No. 21 was sketched from a plant of Coupe d'Hébé (Hybrid Bourbon); No. 22 from a plant of Persian Yellow (Austrian).

No. 21.


Disbudding. Corpe d'Hébé.

- No. 22.


These are both young plants, and we commence by thinning and shortening, as previously explained, which is shewn by the single and double lines, as before.

The habit of the Coupe d'Hébé (No. 21) is erect, its growth vigorous, and the buds are formed at long intervals. The habit of the Persian Yellow (No. 22) is branching, its growth vigorous, and it is remarkable for the proximity of the buds to each other. I have now before me a shoot of the Persian Yellow, about a foot long, on which there are twenty buds; whereas one of Couipe d'Hébé, of the same length, has only six buds. But the Persian Yellow does not develope its branches so strong as the latter, and the foliage is not so large; therefore the buds may be allowed to remain closer together. On the Persian Yellow I rub out two, or sometimes three buds together, as shewn by the open buds in No. 22, and leave one, as shewn by the shaded buds. On the Coupe d'Hébé (No. 21) every other bud is removed. By the accompanying illustrations it will be seen that we remove seven or eight buds from a branch of the Persian Yellow, of equal length with one of the Coupe d'Hébé, from which we remove two or three buds only. But disbudding is not the work of spring alone; it must be attended to all through the growing season. The plants should be looked through at least twice before the time of flowering, and again soon after the flowering is over. The remains
of the flowers should be cut off, unless seed is sought, and only so many eyes be allowed to develope themselves in the second or summer's growth as the state of the tree and the considerations before mentioned may render advisable.

In rubbing out the buds, it is sometimes difficult to decide which to remove. The tendency of a bud should be almost invariably outwards; and in buds, as in shoots, the greater distance, in moderation, they are from each other the better. Should two buds threaten, when developed, to cross or crowd each other, the one taking the least favourable course of growth should be removed.

I have often heard amateurs, when admiring some of the large specimens in the Nurseries here, express astonishment at their prodigious size, which they attribute to great age and good soil. But it must be told, that the system of pruning has as much to do in this matter as the age of the trees, or the soil in which they grow. The oldest of the large trees here cannot number more than twelve years, though there are others much older not half the size. Often have I seen Rose trees full of shoots, nearly all proceeding from the base of the head, owing principally to too close pruning. When the knife is applied, whether in autumn or in spring, the greater part must be removed, for there is not room enough for the whole to be developed. Now, it is not the production of a number of branches I consider injurious: if the tree is in a healthy and vigorous condition, this is natural and advantageous. But why should they not be obtained in such positions that they may be of permanent benefit to the plant-be made to extend its size, and render less thinning necessary? This may be done.

Two years ago, after having pruned a number of large specimens, in which I had observed this error, I watched for the bursting of the buds, with the view of practising disbudding. When they had shot forth about half an inch, I took a knife, with a sharp point, and commenced my search at the heart of the tree. From here I rubbed off, close to the bark, a great number of buds, leaving only such as, from their position, promised to increase the size or improve the contour of the head. If a bud was pushing where there was a gap, such was left; the others were thinned, leaving those which took a lateral and outward course of growth. Proceeding upwards, I cleared the centre of the tree pretty freely, leaving only just so many buds as seemed necessary to preserve it from becoming straggling. Towards the top and circumference, also, the buds, where crowded, or likely to cross each other, were removed. A month after the first looking over, fresh buds had broken, and thus was opened a prospect of more gaps being filled, the outlines of the heads being still improved, and their size extended. They were looked over again and again, and the same plan followed out. The growth was, in consequence, more vigorous than that of the previous year, and the flowers fine. On the fall of the leaf in autumn the succeeding course of action was apparent. The trees were pruned as usual, and there was little mind exercised in the operation-little thinning required-no necessity to look at the trece for some minutes before one could determine where to begin,
104. La Fontaine; flowers purple, of medium size, full. Raised at Angers. Introduced in 1846.
105. La Grandeur ; flowers dark even rose, large and full; form, compact. Habit, branching; growth, moderate. Raised by M. Laffay, of Bellevue.
106. La Quarantieme; flowers lilac rose.
107. L'Ami Déscartes; flowers purplish crimson, large.

La Majesteuse; see Group XII. Hybrid Bourbon.
Lamarque; see General Lamarque.
La Nubienne; see Gloire des Hellènes.
108. Larochefoucadlt; flowers bright red, produced in large clusters; form, globular. Growth, vigorous.
109. La Teuterelle; flowers rose and dove, shaded with slate, large and full;
(Belle de Parny) form, cupped. Habit, branching; growth, vigorous.
(Parny)
110. Las Casas d'Angers; flowers carmine, shaded and marbled with crimson purple, brilliant when newly expanded, of medium size, very double; form, cupped. Habit, pendulous; growth, vigorous; shoots, slender. An abundant bloomer, and very showy; well adapted for a Pillar or Weeping Rose.
111. Lasthenie; flowers rose colour, the summits of the outer petals of a lilac tint, changing to rosy lilac soon after expansion, of medium size, full; form, cupped. Habit, branching; growth, robust.
La Senlisienne; see Group XI. Hybrid Noisette.
Legouvé; see Group XII. Hybrid Bourbon.
112. Le Météore; flowers bright red, large and semi-double. Habit, branching ; growth, vigorous. A very showy Rose; good for a pillar.
Le Maure de Venise; see Othello.
Leopold de Bauffrémont; see Group XI. Hybrid Noisette.
118. Lord Keith; flowers deep rose, marbled with dove, the summits of the petals slightly reflexing soon after expansion, large and full; form, cupped. Habit, branching; growth, robust ; shoots, very spinous; foliage, fine. A splendid Rose in warm dry seasons, but seldom opens well at other times. Raised by M. Laffay, at Bellevue.
114. Lord Nelson; flowers dark even reddish purple, velvety, of medium size and full; form, cupped. Habit, branching; growth, vigorons; shoots, very spinous. Good at times, but uncertain. Raised by M. Laffay, of Bellevue.
115. Louis Fries; flowers blush pink, large and double; form, globular.
116. Louis Philippe; flowers purplish rose, large and very double; form, cupped. Habit, branching ; growth, vigorous.
Lusseldembourg ; see Group XI. Hybrid Noisette.
117. Madame de St. Hermine; flowers rosy pink; growth, vigorous.
118. Madame Pisaroni; flowers bright rose, large; form, cupped. Growth, vigorous.
Madame Plantier; see Group XI. Hybrid Noisette.
119. Madame Poncey; flowers crimson purple.
(Poncey)
120. Madame Rameau; flowers rich dark purple, very velvety, large and full. Habit, erect ; growth, vigorous. One of the best dark Roses, the sun changing the colour less here than in most others of a similar tint. A good Pillar Rose.
121. Magna Rosea; flowers light rose, very large and very double; form, cupped, fine. Habit, branching. One of the largest of Roses, and most vigorous in growth. A good seed-bearer.
Malton; see Fulgens.
122. Maréchal Lannes; flowers bright cherry, of medium size, full; form, compact. Growth, vigorous. A showy and pretty Rose.
123. Maréchal Mortier; flowers crimson purple, very velvety, the base of
(Deuil de Maréchal Mortier) the petals white, giving to the centre of the flower a whitish appearance, the flowers sometimes open of a light vivid crimson, afterwards becoming marbled with purple, large and double; form, cupped. Habit, branching; growth, vigorous; shoots, very spinous.
124. Maréchal Soult; flowers light vermilion, of medium size and double; colour, fine and distinct; form, cupped. Habit, branching; growth, vigorous. Raised at Brenchley, in Kent. A good seed-bearer.
125. Marie; flowers bright rose, large and full; form, cupped, fine.
126. Marie de Champlouis; flowers deep red or crimson, the circumference of the flowers marbled with slate, large and full; form, cupped. Habit, branching ; growth, moderate. Forms a handsome drooping tree, though scarcely free enough for a Weeping Rose. A good show Rose.
Marie de Nerrgea; see Group XI. Hybrid Noisette.
127. Marie Prevost; flowers blush, their centre deep red; form, cupped. Growth, vigorous.
128. Marjolin ; flowers purplish slate, very large and full; form, cupped. Habit, branching; growth, robust. A bold Rose.
129. Maubach; flowers deep violet, of medium size, full.

Micalea ; see Group IX. Hybrid French.
130. Minette; flowers peach colour, the summits of the petals slightly reflexing, of medium size, full; form, globular. Habit, branching; growth, small. A curious Hybrid, distinct and pretty.
131. Miralba; flowers dark crimson purple, of a blackish appearance, small and very double; form, compact. Habit, branching; growth, vigorous. A beautiful little Rose.
132. Monteau; flowers blackish purple, of medium size, full; form, compact. Habit, branching; growth, moderate.
Nathalie Daniel; see Group XI. Hybrid Noisette.
133. Ne Plus Ultra; flowers rich carmine, of medium size, semi-double; (Glory of the Gardens) form, globular. Habit, branching; growth, moderate;
(Pallagi) foliage, fine dark green. A most abundant bloomer, producing a fine effect on the tree.
134. Othello; flowers slate, their centre purplish slate, the summits of the (Le Maure de Venise) petals reflexing soon after expansion, large and full; form, cupped. Habit, branching; growth, moderate. A distinct Rose; beautiful in sunless days.
Pallagi ; see Ne Plus Ultra.
135. Pandora; flowers purple, of medium size, full, wood and foliage peculiar. Habit, branching; growth, vigorous. Raised at Angers. Introduced in 1846.
136. Parigot; flowers vivid crimson; form, cupped; growth, morlerate.

Parny ; see La Teuterelle.
137. Petit Pierre; flowers purplish red, very large and very double; form, cupped. Habit, branching ; growth, vigorous. A fine Pillar Rose. A good seed-bearer.
Philibert Delorme; see Group XII. Hybrid Bourbon.
138. Plantier; flowers red, the base of the petals white, their circumference violet purple, the centre occasionally traversed by a ray of white, of medium size, double; form, cupped. Habit, branching; growth, vigorous. Very distinct.
139. Pompon bicolor; flowers rosy crimson, marbled with purple, their circumference sometimes crimson purple, very velvety, the petals slightly reflexing soon after expansion, of medium size, full; form, expanded. Habit, branching; growth, robust.
Pompon carmin ; see Group XI. Hybrid Noisette.
140. Pompon elegant ; flowers flesh, their centre rose.
141. Ponceau-Capiomont; flowers light purple, shaded with crimson, of medium size, full ; form, compact; the colours rich, the tree producing a splendid effect viewed en masse. Habit, branching; growth, vigorous.
Poncey; see Madame Poncey.
142. Potard ; light crimson, very showy.
143. Prince Albert ; flowers delicate pink, petals closely and elegantly arranged, of medium size, full; form, compact, perfect. Habit, erect; growth, moderate. A beautiful Rose, but rather under size. Raised at Brenchley in Kent.
144. Promoth' e; flowers lilac rose, large and full.
145. Princess Augusta ; flowers bright crimson, shot with purple, most vivid,
large and double; form, cupped. Habit, branching; growth, vigorous. A fine pillar-rose.
146. Reine de Belgique; flowers rosy lilac, large and full; form, globular, fine. Habit, branching; growth, moderate. Raised by M. Jacques at the Chateau de Neuilly. Introduced in 1832.
147. Riego ; flowers light carmine, the colour clear and beautiful, large and double, very sweet; form, globular. Habit, branching; growth, robust, forming an immense bush or tree with fine dark foliage. A little hybridized with the sweet-brier, but retains more of the features of this group than of any other seed-bearer.
148. Ricielieu (Verdier); flowers lilac rose, large and full; form, compact, (Due de Richelieu) perfect. Habit, branching; growth, vigorous. A fine Pillar Rose.
Ricieliev (Duval) ; see Group XII. Hybrid Bourbon.
149. Rosine Dupont ; flowers white, their centre flesh, large and double; form, cupped.
150. Saphyrine; flowers violet, shaded with rosy crimson, very large and full.
151. Saudeur ; flowers blush, striped with lake, their centre sometimes rosy,
(King of Roses) large and full; form, globular. Habit, branching; growth, vigorous; requires but little pruning. A fine thick-petalled Rose, beautiful in dry warm seasons, at other times uncertain.
Sidonie; see Group XXV. Rose de Trianon.
152. Smith's seedling; flowers carmine, the colour clear and beautiful, large and double; form, expanded. Habit, branching; growth, moderate. A very showy Rose.
Sophie d'Houdetot; see Group XI. Hybrid Noisette.
153. Souvenir d'une Mère; flowers bright rose, very large and double; form, cupped. Habit, branching ; growth, vigorous. A very showy Rose, but loose.
154. Stadtholder; flowers blush, their centre light rose, large and full; form, compact. Habit, branching, fine; growth, vigorous; foliage, very good. Well suited for either a Pillar or Pot Rose.
St. Ursule; see Group XI. Hybrid Noisette, Ursule Deveaux.
Suzanne; see Group VIII. The French Rose.
Sylfain; see Group XII. Hybrid Bourbon.
155. Targélie; flowers red, shaded with purple, of medium size, full.
156. Thornless Violet ; flowers dark purple, their centre vivid crimson when (Violet sans aiguillons) newly opened, afterwards changing to violet, of medium size, full ; form, expanded. Habit, branching ; shoots, almost thornless; growth, moderate.
157. Triomphe d'Angers; flowers bright carmine, often striped with white, large and very double; form, cupped. Habit, branching; growth,
moderate, with foliage of a pale green; very showy. Forms a fine Pillar Rose, requiring but little pruning.
158. Triomphe de Guerin; flowers rosy pink, the outer petals blush, large and double; form, globular; produced in clusters, colour and outline beautiful. Habit, branching ; growth, small. Varies as to quality, sometimes singularly beautiful.
Triomphe de Laffay; see Group XI. Hybrid Noisette.
159. Triomphe de Laquede; flowers rosy lilac, veined with slate, their centre sometimes vivid crimson, large and full; form, cupped, exquisite. Habit, pendulous; growth, vigorous. A good Weeping Rose.
Ursule Deveaux; see Group XI. Hybrid Noisette.
160. Vandael; flowers purplish crimson, marbled with slate, large and full; form, cupped. Habit, erect ; growth, vigorous.
Vandhuisson; see Group XII. Hybrid Bourbon.
161. Vauban ; flowers crimson purple, large and full; form, cupped. Growth, vigorous.
162. Velours Episcopali flowers bright red, shaded with violet purple, of medium size, full; form, glokular, fine. Habit, erect, good; growth, moderate. A superior pot Rose.
163. Victoire de Tracey; flowers deep purple, shaded with crimson, large and full.
Victor Hugo; see Group XII. Hybrid Bourbon.
164. Vingt-neuf Juillet; flowers dark crimson, their centre almost scarlet,
(Coccinea superba) glowing, large and full; form, compact. Habit, branching; growth, vigorous; requires but little pruning. A fine Pillar Rose.
165. Violet de Belgique; flowers violet, large and full.

Violet sans Aiguillons; see Thornless Violet.
166. Virginie Zechler; flowers rosy carmine, tinted with lilac, large and full; form, cúpped.
167. Volney ; flowers rosy lilac, large and full; form, compact, perfect. Habit, erect; growth, moderate. A fine show Rose, and an abundant bloomer.
168. Vulcan ; flowers brilliant crimson, shaded with maroon, of medium size, full. Habit, branching; growth, vigorous; shoots, thin, furnished with large spines.

## Williams Jesse; see Group XXXII. Hybrid Perpetual.

169. Yolande Fontaine; flowers blackish violet, of medium size, full; form, globular.
170. Zetella ; flowers clear rose, of medium size, full ; form, globular.

## ROSA GATIICA.

## Group XI.-HYBRID NOISETTE.

The Hybrid Noisette Roses form but a small group. They are, nevertheless, a distinct and interesting one. Their parentage on the one side is mostly of the French or of the Provence, and on the other of the Noisette Rose. They resemble the Hybrid Chinese more nearly than any other group: they differ from them in the flowers being of smaller dimensions, and formed in large corymbs or clusters; owing to which there is a greater succession and longer duration of bloom. They are suitable for the same purposes, and require the same treatment as the Hybrid Chinese, Group X.

1. Adalilla ; flowers pale rosy flesh, shaded with blush, dying off almost white, large and very double; form, cupped. Habit, branching; growth, moderate ; the foliage of a yellowish green. A very abundant bloomer, producing a grand effect on the tree.
2. Adolphe; flowers bright rose, changing to rosy lilac soon after expansion, (Bengale élégante) of medium size, full; form, cupped. Habit, pendulous; growth, vigorous. A showy Rose, blooming very abundantly. Forms a good Weeping Rose, also a good Pillar Rose.
3. Anisette de Chantemerle; flowers white, their centre flesh and cream, large and full; form, cupped. Habit, pendulous; growth, vigorous. A peculiar hybrid, the branches furnished with large hooked thorns; the flowers aniseed scented.
4. Belle de Rosny; flowers delicate peach, their centre often rosy, of medium size, very double ; form, globular. Habit, a little branching; growth, moderate. Forms a handsome compact-headed tree or bush: the flowers are held in an elegant position by the erect flower stalks. A free blooming variety, pretty and distinct.
Bengale élégante; see Adolphe.
5. Beranger; flowers rosy lilac, marbled with bright rose, of medium size, full ; form, cupped. Habit, erect; growth, moderate, compact, and pretty.
6. Briseis; flowers delicate flesh colour, of medium size, full.
7. Bouquet blanc ; flowers pure white, of medium size, very double.
8. Claire d'Olban ; flowers delicate rose, of medium size, full.

Egérie; sce Group X. Hybrid Chinese.
9. Elizabeth Fry; flowers rose colour, large and very double Habit, branching; growth, vigorous.
Emmeline; see Madeline.
10. Ethereal; flowers rosy crimson, changing to pale rose, of medium size, full; form, expanded.

## (Div. II.)

11. Fidéline; flowers rose, of medium size, full. Raised at Angers. Introduced in 1843.
12. Fleurette; flowers rosy pink, of medium size, full.
13. Gloriette; flowers delicate flesh colour, small and full.
14. Hybride parfaite; flowers delicate rose, of medium size, full.
15. La Colombine; flowers lilac rose, large and double; form, cupped, fine. Growth, moderate. A very showy Rose, but rather flimsy.
16. La Senlisienne; flowers blush, shaded with peach, the petals very small and closely set, small and very double ; form, expanded. Habit, branching; growth, moderate. A very distinct Rose. Raised by M. Laffay of Bellevue.
17. Léopold de Bacffrémont ; flowers pale rose, large and very double; form, cupped. Habit, branching; growth, vigorous. A beautiful Rose: grows well in a pot.
18. Lusseldembourg; flowers pale rose, shaded with blush, large and fuli; form, compact.
19. Madame Plantier; flowers creamy white when newly opened, changing to pure white, of medium size, full; form, compact. Habit, branching ; growth, vigorous; shoots, slender; foliage of a light green. An immense bloomer, and a beautiful Rose, forming a large bush or tree, producing a sheet of white blossom, and lasting a long time in flower.
20. Madeline; flowers creamy white, or sometimes pale flesh, usually margined
(Emmeline) with crimson, large and very double; form, compact. Habit,
(Double margined hip.) erect; growth, vigorous. A beautiful Rose when produced true to character, and by no means an inconstant one. It partakes slightly of the nature of the Sweet Brier, and is known also as the Double Margined Hip.
21. Maria Stella; flowers deep rose, of medium size, full.
22. Marie de Nerrea; flowers clear pale pink, dying off lively blush, large and double ; form, expanded. Habit, branching; growth, moderate. A most abundant bloomer, producing a fine effect on the tree.
23. Nathalie Daniel; flowers pale peach, of medium size, very double; form, cupped, fine. Habit, branching; growth, vigorous; the foliage of a dull green. A distinct and good Rose. Raised at Paris. Introduced in 1845.
24. Pompon carmin ; flowers bright carmine, changing to rosy pink soon after expansion, small and full; form, cupped. Habit, branching; growth, moderate. A neat and pretty Rose.
25. Sophie d'Houdetot; flowers shaded pink, large and full; form, compact. Raised at Angers. Introduced in 1842.
26. Triomphe de Laffay; flowers delicate flesh when newly opened, changing
to white, large and very double; form, expanded. Habit, pendulous; growth, moderate. A showy Rose.
27. Ursule Deveaux ; flowers rose, their margin blush, large and full; form, (St. Ursule.) compact. Habit, branching; growth, moderate.

## rosa Gailica.

Group XII.-HYBRID BOURBON.
The Hybrid Bourbon Roses are also, in greater part, descended from the French or the Provence crossed with the Bourbon, or vice versî. They are less diffuse and more robust in growth than the Hybrid Chinese, being readily distinguished from them by their broad stout foliage, the leaflets of which are more obtuse. The tout ensemble of these Roses is particularly fine : some are compact growers, many are abundant bloomers, and the flowers are in general large and handsome. They are well suited for growing in pots, either for forcing or exhibition. In pruning, they may, with few exceptions, be treated as recommended for the Hybrid Chinese. Colonel Coombs, Daphne, L'Admiration, and Richelieu thrive best grown as dwarfs or dwarf standards: they should be planted in a rich soil, and be pruned in rather closely.

1. Adonis ; flowers clear violet red, large and full. Raised in the vicinity of Paris. Introduced in 1835.
2. Andrieux ; flowers deep rose, large and full.
3. A pétales mucronés ; flowers rose, changeable, of medium size, full.
4. Athelin ; flowers rosy crimson, sometimes spotted with white, lively, of medium size, double; form, cupped. Habit, branching; growth, robust. A distinct and showy Rose, of a fine habit, blooming most abundantly: requires but little pruning. A good seed bearer, and the parent, on one side, of many of the Hybrid Perpetual Roses.
5. Belle de St. Cyr; flowers pale rose, of medium size, full; form, cupped, fine. Habit, branching ; growth, moderate.
6. Bernard Palissy; flowers deep rose, striped with purple, globular, large and full. Raised at Angers; first offered for sale in the autumn of 1847.
7. Brilliant ; flowers deep pink, of medium size, and double; form, cupped. Habit, erect; growth, robust. A very showy Rose.
Brown's Superb; see Group X. Hybrid Chinese.
8. Capitaine Sisolet; flowers beautiful rose, large and very double; form, cupped. Habit, branching, fine; growth, vigorous. A very showy Rose. A good seed bearer.
9. Celine; flowers pale rose, very large and double; form, cupped. Habit,
branching; growth vigorous; the flowers produced in large clusters. A loose Rose. A good seed bearer.
10. Chatelain ; flowers rosy lilac, sometimes striped with white, very large and double; form, cupped. Habit, branching; growth, vigorons. Raised by M. Laffay of Bellevuc. A good seed bearer.
11. Charles Duval ; flowers deep pink, large and full; form, cupped. Habit, erect, fine; growth vigorous ; the shoots clothed with beautiful foliage. A good Rose, either for a pot or pillar; forms also a very handsome tree. A good seed bearer. Raised at Montmorency. Chénédolé; see Group X. Hybrid Chinese.
12. Christiani ; flowers bright rose, large and full; form cupped.
13. Claude Lorraine; flowers brilliant rose; form, cupped, fine.
14. Colonel Coombs; flowers brilliant red, sometimes spotted with blush, of medium size, very double; form, cupped. Habit, erect; growth, small. A neat and pretty Rose.
15. Comte Boubert; flowers rose-colour, some of the petals occasionally coming blush and flesh, their summits reflexing very prettily soon after expansion, large and double; form, cupped. Habit, branching; growth, robust.
16. Comte Colbert ; flowers deep pink, shaded, compact, large, and very double.
17. Compesse Molé; flowers bright rose-colour, tinted with purple, changing to flesh colour, with a lilac tint, very large and full; form, cupped. Hahit, erect; growth, robust.
18. Coupe d'Héré ; flowers rich deep pink, exquisite in colour, large and very double; form, cupped, perfect. Habit, erect; growth, vigorous; foliage, fine. Good either for a pot or a pillar, and a first-rate show Rose. Raised by M. Laffay of Bellevue. A good seed bearer. See Plate VI.
19. Daphné; flowers light carmine, most beautiful in colour, of medium size, double ; form, cupped. Habit, erect and good ; growth, small. A distinct Rose, requiring to be well grown to be called a fine one. Raised in the vicinity of Paris. Introduced in 1835. A good seed bearer.
20. Dombrowskii ; flowers deep scarlet, often shaded with purple, of medium size, very double; form, cupped. Habit, branching, yet compact; growth, moderate. A very abundant bloomer, producing a fine effect on the tree. A good seed bearer. Raised in the vicinity of Paris. Introduced in 1840.
21. Duc Decazes; flowers deep rose, their circumference inclining to blush, very large and full; form, cupped. Habit, branching; growth, vigorous; requires but little pruning. A splendid Rose in dry warm seasons, but does not usually open well at other times. A good sort for a pillar in a sunny spot.

$\therefore$, , ".

Duke of Devonsmire; see Group X. Hybrid Chinese.
22. Edouard Delair; flowers rosy purple, of medium size, very double; form, cupped. Habit, branching, fine; growth, moderate.
23. Eliza Mercoevr; flowers rosy crimson, their circumference rosy blush, very large and very double ; form, cupped. Habit, branching; growth, moderate. A good Rose. Raised at Angers. Introduced in 1842.
24. Elizabeth Plantier; flowers crimson, shaded with purple, large and double; form, cupped. Habit, branching; growth, vigorous. A very showy Rose, producing a splendid effect on the tree.
2.). Esméralda; flowers purple, of medium size, full.
20. Franklin ; flowers dark rose, their margin pale rose, very large and full; form, cupped. Habit, branching; growth, robust; foliage, fine. A noble Rose in warm dry seasons, but does not open kindly at other times.
27. Glorieux ; flowers blush, large and very double.
28. Great Western ; flowers crimson scarlet, marbled with violet purple, varying exceedingly, sometimes brilliant, sometimes dark and beautiful, produced in great clusters, very large and double; form, globular. Habit, branching, fine; growth, robust. An extraordinary Rose, forming an immense tree, producing a splendid effect when in flower. A good seed bearer. Requires but little pruning.
Helvetius (Laffay); see Group X. Hybrid Chinese, "Aurora."
29. Henri $\mathrm{Barbet}^{2}$; flowers light carmine, beautiful in colour, large and double; form, cupped. Habit, branching; growth, robust. A fine Pillar Rose. A good seed bearer.
30. Hortense Leroy; flowers rosy pink, changing paler after full-blown, of medium size, very double; form, globular. Habit, branching ; growth, moderate. Raised in the vicinity of Paris. Introduced in 1838.
31. Hortensia ; flowers pink, fine in colour, large and semi-double, produced in large clusters; form, cupped. Growth, vigorous. A distinct Rose. Raised in the vicinity of Paris. Introduced in 1837.
32. La Dauphine; flowers clear pale flesh, slightly tinged with lavender, peculiar in colour, large and very double; form, cupped. Habit, branching; growth, robust ; the branches clothed with fine broad foliage of a very dark green.
33. L'Admiration ; flowers lilac pink; form, cupped, fine. A poor grower.
34. L'Amethyste; flowers light cherry colour, very bright, the base of the petals yellowish, of medium size, very double; form, cupped. Habit, erect; growth, robust. A free bloomer, and very showy.
35. La Majesteuse; flowers deep bright rose, large and full ; form, cupped. Habit, branching; growth, vigorous. A bold Rose, forms a fine pillar. A good seed bearer.
(Div. II.)
36. La Superbe; flowers bright rose, large and very double; form, cupped, fine. Habit, branching ; growth, very robust. Raised at Bellevue.
37. Lady Montgomery; flowers blush, shaded with pale rose, and sometimes with peach, produced in clusters, large and very double; form, cupped. Habit, branching ; growth, robust. A very distinct Rose. Raised by M. Laffay of Bellevue.
38. Las Casas; flowers rosy pink, sometimes deep rose colour, edged with crimson, very large and full; form, cupped. Habit, branching, fine; growth, robust ; the foliage particularly good. A splendid Rose in warm seasons; uncertain at other times.
39. Legouvé; flowers bright carmine, the summit of the petals slightly reflexing, large and full; form, cupped. Habit, branching ; growth, vigorous. Forms a handsome tree or Pillar Rose; the foliage very good. A good show Rose, and a good seed bearer.
40. Le Vesuve; flowers bright rose, large and very double; form, cupped.
41. Lord John Russell; flowers brilliant rose, changing paler when full blown, large and double; form, compact. Habit, branching, fine; growth, robust. A very abundant bloomer, and very showy, producing a fine effect on the tree. A good seed bearer. Raised by M. Laffay of Bellevue.
Lusseldembourg; see Group XI. Hybrid Noisette.
Malton; see Group X. Hybrid Chinese, " Fulgens."
42. Miss Chauncey; flowers clear light rose, colour very pretty, of medium size, very double; form, cupped. Habit, branching ; growth, moderate.
43. Myrobolan; flowers rose, the circumference of the petals inclining to blush, large and full ; form, cupped. Habit, branching, fine ; growth, robust.
44. Narcisse Desportes; flowers dark rose, large and full; form, globular. Habit, branching ; growth, robust. A fine Rose, though occasionally rather loose.
45. Olympia; flowers rosy flesh, tinged with fawn; form, cupped.
46. Paul Perras; flowers beautiful pale rose, large and very double; form, compact. Growth, vigorous. A first-rate Rose, either for a pot or pillar; forms also a good tree, and is a good variety for exhibition. An abundant seed bearer.
47. Philibert Delorme; flowers peach, tinged with lilac, large and full; form, cupped. Habit, erect; growth, robust; the foliage very splendid.
48. President Molé; flowers pale rose, very large and full; form, cupped.
49. Richelieu (Duval); flowers clear deep pink, large and usually very double, but varies as to fulness; form, cupped, exquisite. Habit, branching; growth, moderate. A fine show Rose; requires to be well grown, and rather closely pruned. Raised at Montmorency.
50. Strié; flowers purple, striped with violet, of medium size, full.
51. Sylvain ; flowers bright crimson, large and very double; form, cupped. A good Rose.
52. Tippoo Saib; flowers rosy carmine, mottled with pink, large and very double; form, cupped. Growth, vigorous. A superb Rose.
53. Tourville; flowers peach, large and full; form, globular. Habit, erect; growth, robust. Raised at Angers. Introduced in 1846.
54. Triptolemus; flowers rosy cherry, the circumference of the outer petals blush, changing paler after full blown, of medium size, very double ; form, expanded. Habit, erect, fine; growth, vigorous; the foliage very good. An abundant bloomer, producing a fine effect on the tree.
55. Vandhuisson; flowers bright crimson, large and very double; form, cupped.

Habit, branching ; growth, vigorous. A showy Rose, producing a good effect on the tree.
56. Victor Hugo; flowers rosy lilac, shaded, very large and full; form, globular. Habit, erect ; growth, vigorous. A fine Pillar Rose, and a firstrate show Rose.
William Jesse; see Group XXXII. Hybrid Perpetual.
57. Zehler ; flowers light crimson, large and very double; form, compact.

## $\boldsymbol{R} \boldsymbol{O S A A B A}$.

## Group XIII.-THE ALBA, or WHITE ROSE.

What shall be said of the varieties of this Rose? Their strongest claim to notice rests, perhaps, on their distinctness : they differ from all others. Although forming but a small group, the extreme delicacy and surpassing beauty of the flowers, which are chiefly of white, blush, flesh, and pink hues, make them a highly popular one. Great size they cannot boast of, but the flowers are neat and elegant, and produced in great abundance.

The upper surface of the leaves of the true Albas has a whitish appearance, beneath which is shewn an intense green: the shoots are, in many instances, spineless; but the varieties are, as in most other groups, hybridized, and some are very spinous. They form handsome trees, both as standards and dwarfs: the strong growers require moderate pruning; the others close pruning.

The Alba Rose ranges over the middle of Europe, and was introduced in 1597.

1. Achille; flowers bright rosy blush, compact and full.

Adrienne de Cardoville; see Group V. Provence.
2. Antoinette; flowers white, of medium size, double.
3. Angélique; flowers blush, rose centre, of medium size, full ; form, compact.

Habit, branching ; growth, moderate.
4. Astrée; flowers pink, changing to delicate lilac blush after opening, very large and very double; form, globular. Habit, branching ; growth, moderate.
5. Attila ; flowers brilliant rosy crimson, large and showy; form, cupped.
6. Belle Clémentine; flowers dark rose, mottled with blush, of medium size, full ; form, expanded. Habit, erect ; growth, moderate.
7. Belle de Segur; flowers soft rosy flesh, edges blush, beautiful, of medium size, full; form, cupped. Habit, erect; growth, vigorous; foliage, fine dark green.
8. Belle Iris; flowers flesh, of medium size, double; form, cupped. Habit, branching; growth, moderate.
9. Belle Thérése; flowers deep pink, large and double; form, cupped. Habit, erect ; growth, moderate. A free bloomer, and showy.
10. Blanche Belgique; flowers white, their centre tinted with sulphur, of medium size, full; form, compact. Habit, branching ; growth, moderate; foliage, dark green.
11. Blush Hip, New; flowers delicate blush, their centre flesh, of medium size, full; form, compact. Habit, branching; growth, vigorous. Forms a splendid Pole Rose. An abundant and early bloomer; the flowers exquisite when about half blown.
12. Buff; flowers pale buff, small and full ; form, globular. Habit, branching ; growth, small. Distinct and pretty.
13. Camellia; flowers white, small and double.
14. Camille Boulan ; flowers delicate rose, of medium size, very double; form, globular.
15. Candide; flowers white, tinged with fawn; form, compact.
16. Cécile Loisiel ; flowers delicate rose, of medium size, double.
17. Céleste Blanche; flowers white, of medium size, double.
18. Celestial; flowers flesh colour, beautifully tinted with the most delicate pink, of medium size, double; form, cupped. Habit, erect; growth, moderate.
19. Chloris; flowers delicate flesh, small and full; form, compact. Habit, erect; growth, small. Very pretty.
20. Clotilde; flowers rose, their margin white, large and very double.

Corinne; see Attila.
21. De Montigny; flowers blush; form, cupped.
22. Duc de Luxembourg; flowers soft lilac blush, exquisitely tinted with rose, large glossy petals, large and double; form, cupped. Habit, pendulous; growth, moderate. Requires close inspection to appreciate the beauty and delicacy of the colours.
23. Effie Deans; flowers lilac red, sometimes striped, large and double; form, cupped.

24. Esmeralda ; flowers delicate flesh, their margin white, of medium size, full. Raised in the neighbourhood of Paris. Introduced in 1847.
25. Etoile de la Malmaison ; flowers flesh, fading to French white, large and full; form, cupped. Habit, erect; growth, vigorous. A showy Rose, with fine dull green leaves.
26. Fanny ; flowers salmon blush, large; form, expanded.
27. Fanny Sommerson; flowers rosy lilac blush, of medium size, full; form, compact. Habit, erect; growth, moderate.
28. Félicité Parmentier; flowers rosy flesh, their margin white, exquisite in bud, of medium size, full ; form, compact. Habit, erect; growth, robust. A very abundant bloomer, and indispensable even in a small collection.
29. Ferox ; flowers white. Habit, curious.
30. Flotine ; flowers white, tinged with flesh, of medium size, full; form, cupped. Habit, branching ; growth, moderate.
31. Françoise de Foix ; flowers bright rose; form, cupped.
32. Gracilis; flowers flesh colour; small and full.
33. Henriette Campan ; flowers dark purplish rose, of medium size, full ; form, expanded. Habit, branching; growth, moderate. A beautiful and distinct Rose.
34. Jeanne d'Arc; flowers delicate flesh, their margin blush, of medium size, full : form, cupped. Habit, branching ; growth, robust.
Joséphine Beauharnais; see Belle de Segur.
35. La Remarquable; flowers white; form, cupped, sometimes do not open. Growth, robust.
36. La Séduisante; flowers rosy flesh, large and full ; form, compact. Habit, erect; growth, robust. Shoots covered with small red spines. A superb Rose.
37. Lady Fitzqerald; see Group IV. The Damask Rose.
38. Lasthénie; flowers flesh colour, of medium size, full; form, globular. Raised at Angers. Introduced in 1844.
39. Lucrèce; flowers pale rose, their centre deep rose, very large and double; form, globular. Raised at Angers. Introduced in 1847.
40. Maiden's Blush ; flowers soft blush, colour of the buds exquisite, of medium size, double; form, globular. Habit, branching; growth, moderate.
41. Madame Audot; flowers glossy flesh, edges creamy blush, large and full; form, cupped. Habit, branching; growth, moderate. A beautiful Hybrid Rose. (See Plate V.)
42. Madame Campan ; flowers vivid rose, mottled with dove, of medium size, full; form, cupped. Habit, erect; growth, moderate. One of the best mottled Roses.
43. Madame Legras; flowers pure white, their centre sometimes creamy, very
large and full ; form, expanded. Habit, branching; growth, moderate. A free bloomer, and superb White Rose.
44. Malvina; flowers blush, their centre rosy.
45. Marie de Bodrgogne; flowers rose, spotted with white, of medium size, very double.
46. Mènage; flowers flesh colour, of medium size, full; form, cupped. Raised at Angers. Introduced in 1847.
Naissance de Vénus; see Queen of Denmark.
47. New Celestial ; flowers bright pinkish rose, large and showy.
48. Nova ceelestis; flowers pure white; form, cupped.
49. Petite Cuisse de Nymphe; flowers flesh colour, small and full.
50. Pompon blanc, or bazard; flowers pink, their margin blush, small and full ; form, compact. Habit, branching ; growth, small. An abundant bloomer, and a pretty miniature.
51. Pompon carnée; flowers flesh colour, of medium size, full.
52. Princesse Lamballe; flowers pure white, sometimes delicately tinted with flesh, of medium size, full; form, compact. Habit, branching ; growth, vigorous in some places, in others shy and delicate. A lovely Rose.
53. Queen of Denmark; flowers rosy pink, their margin paler, of medium size, full; form, cupped. Habit, erect; growth, moderate. A beautiful Rose; a hybrid.
54. Royal; flowers pink, of medium size, full ; form, cupped.

⿹ัJ. Sophie de Bayièe; flowers deep rosy pink, produced in clasters, of medium size, full ; form, compact. Habit, branching; growth, moderate. An abundant bloomer; a lively and showy Rose.
56. Sophie de Marsiley ; flowers blush, their centre rose, large and full; form, globular. Habit, erect ; growth, vigorous; more spinous than others of the group. A beautiful Rose when about half blown; but requires clear dry weather to produce its flowers in perfection.
57. Vends; flowers pure white; form, cupped.
58. Viridis; flowers creamy white, buds greenish before expanding, of medium size, full; form, cupped. Rarely opens its flowers well.
59. Viscomite de Schymacker; flowers pale carmine, their margin lighter, large.
60. Vix bifera ; flowers rose, of medium size, double.
61. Zénobie; flowers rose, of medium size, full. Raised at Angers.

## ROSA RUBTGTNOSA.

## Grour XIV.-THE SWEET BRIER AND ITS HYBRIDS.

The Sweet Brier ! the Eglantine! the favourite Rose of the Pocts! with whom we are content to leave it : it can need no praise at our ha: ds.

Few, if any, of the Hybrids, have their leaves so highly scented as the native species, whose modest flowers delight us in summer, and whose bright scarlet hips enliven the hedges at the close of autumn. What school-boy, whose lot may have been cast amid its favourite haunts, is not familiar with the flavour of these latter.

The varieties of this group'are very hardy, requiring no particular cultivation, thriving equally well as standards or dwarfs. They are distinguished by the fragrance of the leaves and a certain roughness of appearance.

1. Carmine; flowers brilliant carmine, distinct; form, cupped.
2. Carnation ; flowers blush.
3. Celestial; flowers pale blush, semi-double; form, compact. Growth, vigorous.
4. Chinese; flowers fine deep rose, of medium size, double ; form, compact. Habit, erect, delicate ; growth, dwarf.
5. Clementine; Howers rosy blush, distinct.
6. Hebe's Lip; flowers creamy white, their margin pink, single; form, cupped. (Margined Hip)
7. Iver Cottage; flowers pale pink; form, cupped.

La Belle Distinguée; see Scarlet.
8. Maiden's Blush; flowers pale rose, compact and double.

Margined Hip; see Hebe's Lip.
Margined Hip, double ; see Group XI. Hybrid Noisette, "Madeline."
9. Monstrous; flowers light rose, very large ; form, cupped.
10. Mossy ; flowers light pink, the buds mossy.

Riego (Hybrid); see Group X. Hybrid Chinese.
11. Rose Angle; flowers bright lilac rose; form, cupped. Raised by Mr. Martin, of Rose Angle, near Dundee.
12. Royal; flowers pale rose ; form, cupped.
13. Scarlet ; flowers bright rosy crimson, small and very double; form, com(La Belle distinguée) pact. Habit, erect; growth, moderate. Very pretty.
14. Splendid; flowers light crimson; form, cupped.
15. Superb; flowers bright rose, full; form, cupped. Growth, robust.

## ROSATTMEA.

## Group XV.-THE AUSTRIAN BRIER.

This may be called a group of Yellow Roses, for the varieties which compose it are mostly of that colour. The Austrian Brier is a native of Germany and the south of France, and was introduced to England in 1596. It is distinguished by its small leaflets and solitary flowers, the bark of the wood being, for the most part, of a chocolate colour. The varieties are very hardy, but require a pure air and dry soil to flower them in perfection. Hence, they rarely succeed well near London; the Harrisonii is an exception, and the Persian Yellow may be the same; but of this we have as yet no proof. I have been told that the latter variety grows wild in the hedges of Persia. If so, strange it is that a Rose of such rave beauty should only just now have reached Europe. But probably it was the single kind which caught the eye of my informant.

The Harrisonii is capable of being formed into a perfect Weeping Rose. Select a plant on a four-feet stem, grow it vigorously, thinning out, but not shortening the shoots. Thus it will droop beautifully, producing its golden blossoms in gorgeous abundance. If a Weeping Rose is wanted every year, two plants should be grown, that each may be cut in close every alternate year, otherwise the tree becomes weak and shabby.

These Roses require very little pruning : the flowers are usually produced from the eyes at the middle or near the top of the shoots: the branches should, therefore, be well thinned out in ordinary pruning, the shoots left having their mere tips taken off.

1. Bicolor, or flamed; flowers copper and yellow, single; form, cupped. Habit, branching; growth, vigorous.
2. Copper ; flowers rich reddish copper, single ; form, cupped. Habit, branching; growth, moderate.
3. Double Blush ; flowers light rosy pink, their centre buff; form, cupped. (Victoria) Very sweet.
4. Double Yellow, (Williams'); flowers bright yellow, of medium size, double ; form, cupped. Habit, branching; growth, moderate. An abundant and early bloomer ; requiring but little pruning. A good seedbearer. Raised by Mr Williams of Pitmaston.
5. Globe Yellow; flowers bright lemon; form, globular.
6. Harrisonit ; flowers fine golden yellow, of medium size, double; form, cupped. Habit, pendulous; growth, moderate. An abundant and early bloomer, producing a splendid effect on the tree, but very transitory. Requires little pruning. Introduced from America about fourteen years since.
$1$

7. Harrisonir, No. 2; flowers buff, their centre reddish salmon; form, cupped.
8. Italian Yellow; flowers pale straw colour.
9. Persian Yellow ; flowers of the deepest yellow, large and full; form, globular. Habit, branching; growth varies, often vigorous. Requires but little pruning. Introduced from Persia by Sir H. Willock in 1837.
Provence; see Rosa Sulphurea, Group II. "Double Yellow."
10. Single Yellow; flowers bright primrose, large and single; form, cupped.

Habit, branching; growth, vigorous.
Victoria; see Double Blush.

ROSA ARVENSIS.
Group XVI.-THE AYRSHIRE ROSE.
This is a native species, abounding also throughout Europe, trailing over waste lands, and climbing the hedges and thickets, often completely hiding the undergrowth from view, producing its solitary blossoms in magnificent profusion in June and July. This is the hardiest of Climbing Roses, growing exceedingly rapid where others will scarcely exist. The shoots are slender, owing to which the varieties form admirable Weeping Roses when worked on tall stems: they are also of the best description for planting to cover banks, and rough places in parks or shrubberies, soon converting the dreary waste into a flowery plain. "Ruga," one of the best of the Group, is apparently a Hybrid between the Ayrshire and Tea-scented. It was raised in Italy, and is quite hardy, notwithstanding the proverbial delicacy of the one parent.

As may be supposed from the names of these Roses, they are chiefly of British origin ; indeed, we scarcely find mention of them in foreign Catalogues.

1. Alice Gray ; flowers creamy salmon blush.
(Scandens)
2. Angle; flesh tinged with rose, large and semi-double; form, expanded. (Jessica)
3. Bennett's Seedling; flowers white, of medium size, double; form, ex(Thoresbyana) panded. A free bloomer.
4. Countess of Lieven; flowers creamy white, of medium size, double; form, cupped.
5. Dundee Rambler; flowers white, of medium size, double; form, compact.

A plant of this is growing here completely underneath a large elm tree, where it thrives and flowers well every year.
Jessica ; see Angle.
6 Lovely Rambler; flowers pink, large and single; form, cupped.
(Div. II.)
7. Miller's Climber; flowers rosy pink, the buds cherry colour when young; large and semi-double; form, cupped.
Myrrh-scented; see Splendens.
Queen ; see Group XIX. "Hybrid Musk," \&c.
8. Queen of the Belgians; flowers creamy white, thick petals, large and double; form, expanded.
9. Ruga; flowers flesh-colour, changing to creamy white, large and double; form, cupped; very sweet. A good sced-bearer.
Scandens; see Alice Gray.
10. Splendens; flowers pale flesh, buds crimson when young, presenting a pretty effect on the tree, large and double; form, globular. One of the best of Weeping Roses. A good seed-bearer.
Thoresbyana; see Bennett's Seedling.

## EOSA SEMPERVIRENS.

Group XVII.-THE EVERGREEN ROSE.
The Sempervirens Rose abounds throughout the middle of Europe, and is supposed to have been introduced in $\mathbf{1 6 2 9}$. It is suited for the same purposes as the Ayrshire, from which it differs by producing its flowers in corymbs, instead of singly, and by holding its beautiful dark green leaves till the depth of winter. On account of these properties, we think it more valuable than the last mentioned. It is not strictly evergreen, as its name would lead us to suppose. It is very hardy, of vigorous growth, and an abundant bloomer. As Pillar Roses some are very beautiful, rising quickly to the height of ten or twelve feet, their pretty ranunculus-shaped flowers drooping in graceful corymbs of from ten to fifty blooms each. In pruning they require much thinning, and the shoots left should be merely tipped.

1. Alba plena; flowers pure white, full.
2. Adelaide d'Orleans; flowers creamy white, of medium size, full; form, (Leopoldine d'Orteans) globular. Blooms in large handsome clusters. A superb Climbing or Weeping Rose.
3. Banksifflora; flowers cream with yellowish centre, of medium size, very double; form, cupped. A distinct and good Pillar or Climbing Rose; the foliage of a fine light green; the flowers produced in handsome clusters. Requires very little pruning.
4. Brunonir ; flowers rosy crimson, large and double; form expanded; showy.
5. Carnea grandiflora; flowers flesh-colour, large and double; form, cupped.
6. Donna Maria; flowers pure white, of medium size, full; form, cupped,
fine. A beautiful Rose, blooming in large handsome trusses; foliage, pale green; growth less vigorous than others. Raised by M. Vibert.
7. Félicité Perpétue; flowers flesh-colour, changing to white, produced in graceful trusses, drooping with their own weight, of medium size, full; form, compact. A superb Pillar or Climbing Rose. Raised at the Chateau de Neuilly in 1828.
Floribunda; see Group XVIII. "Multiflora."
8. Jaunâtre; flowers fawn-coloured rose.
9. Madame Plantier; flowers rosy lilac, small and pretty.
10. Mélanie de Montjoie; flowers creamy white, of medium size, full; form compact. A fine Rose, but rather a shy grower.
11. Minor; flowers pale flesh, blooming occasionally in the autumn.
12. Myrianthes Rénoncule; flowers pale peach, their centre white, hanging in graceful trusses, of medium size, full; form, cupped, fine. A handsome Climbing or Pillar Rose.
Odorata; see Triomphe de Bolwyller, Group XXXV. "Tea-scented."
13. Princesse Louise; flowers creamy white, the back petals shaded with rose, large and double; form, cupped. Raised at the Chateau de Neuilly in 1829.
14. Princess Marie; flowers clear pink, of medium size, full. Raised at the Chateau de Neuilly in 1829.
15. Rampant; flowers pure white; sometimes produced in autumn. A profuse bloomer.
16. Reine des Français; flowers rose, double; form, cupped.
17. Rosea major or plena ; flowers rosy flesh, changing to white, large and very double; form, cupped ; foliage, glossy, fine. Raised by M. Laffay.
18. Spectabile; flowers rosy pink, of medium size, double; produced occa(Noisette Ayez) sionally in the autumn; form, cupped, pretty and distinct. Triomphe de Bolwyller; see Group XXXV. "Tea-scented."

## ROSA MUTTEEIORA.

## Group XVIII.-THE MULTIFLORA ROSE.

To Japan and China we look for the habitats of the type of this Group. It was introduced to England in 1804. These are also Climbing Roses, producing their flowers in large corymbs, and consequently continuing a long time in bloom. The varieties marked with an asterisk are not hardy, and should be planted against a wall: the others may be grown as open Climbers. The foliage
of this Group is particularly elegant, and the branches have but few spines. Lauré Davoust, a Hybrid, classed here, deserves a passing word. It forms a magnificent Weeping Rose, but requires a sheltered situation. There is a plant bere on a six-feet stem, only two years old, and whose branches droop to the ground, the foliage being completely hidden by the myriads of flowers.

1. Achille ; flowers purplish rose.
2. *Alba; creamy white, small and very double; form, compact.
3. Carmin velodté; flowers lively pink, produced in large trusses, of medium size, very double; form, expanded.
4. Coccinea; flowers rosy carmine, changeable, small and full.
5. Crivellit; flowers bright red, produced in large trusses. Partakes of the nature of the Boursault.
6. De la Grifferaie; flowers deep rose in bud, changing to blush, large and full; form, compact. Extremely robust.
7. Elegans ; flowers reddish rose, small and full. $^{\text {E }}$
8. Floribunda; flowers rose, tinged with buff.
9. Fragrans ; flowers bright rose.
10. Grandiflora; flowers deep rose, large.
11. Graulhí́; flowers pure white, outer petals tinged with rose, of medium size, full; form, cupped. Good.
12. *Grevillei; flowers bright rose, shaded, changeable, often presenting three (Seven Sisters) or four shades of colour on the same truss.
13. Grevillei alba; flowers pure white.

Grevillei grandiflora; see Grandiflora.
14. Grevillei minor; flowers shaded rose.

Grevillei scarlet; see Russelliana.
15. Lacré Davoust; flowers clear pink, changing to flesh, dying off white, small and full; form, cupped. The flowers are produced in large and elegant trusses, the three colours shewing on the truss at the same time.
16. Purpurea; flowers purplish pink.
17. *Rubra; flowers reddish rose, small and very double; form, cupped.
18. Russelliana; flowers rich dark lake, gradually changing to lilac, of medium (Scarlet Grevillei) size, very double; form, expanded. A good and distinct Pillar Rose.
Seven Sisters; see Grevillei.
19. Superba; flowers bright rose; form, cupped.

## Group XIX.-THE HYBRID MUSK and OTHER HYbrids.

These Roses are hardy, and, with the exception of "Clair," vigorous growers, suited only for Climbers. "Madame d'Arblay" and "The Garland" partake of the nature of the Musk Rose, although possessing but little of its peculiar odour : they are prodigious growers, forming shoots fifteen feet long in one year, and of great stoutness, throwing one hundred or more flowers in a single truss.

1. Astrolabe ; flowers bright rose, very double; form, compact.
2. Bengale formidable; flowers pale rose; form, cupped.
3. Clair; flowers reddish crimson, single; form, cupped.
4. Elegans rosea; flowers bright red, produced in large clusters.
5. Indica major; flowers pale blush. Habit robust and vigorous.
6. Madame d’Arblay; flowers delicate flesh, changing to white, of medium (Wells' White) size, double ; form, cupped. Habit very robust and vigorous. Raised by Mr. Wells of Redleaf.
7. Queen ; flowers dark purplish crimson, large and semi-double; form, cupped.
8. Sir John Sebright; flowers light vivid crimson, small and semi-double. Showy.
9. The Garland; flowers fawn-colour when in bud, opening nearly white, produced in large trusses, of medium size, double; form, expanded. Raised by Mr. Wells of Redleaf.
10. Watts' Climbing Provence; flowers rose colour, very double. Wells' White; see Madame D'Arblay.

## ROSA RUBIEOIIA.

Grour XX.-THE PRAIRIE ROSE.

The Prairie, or Bramble-leaved Rose, is a North-American species, introduced to England in 1830. We have since received several varieties from the same country, raised, we believe, by Mr. Pierce of Washington, and Mr. Feast, also an American gentleman. Mr. Pierce, in the Magazine of Horticulture, advocates the use of the Prairie Rose for hedges or line fences; and remarks, that having sown a lot of seeds in a wild state, for the purpose of obtaining stocks, he was surprised to find among the offspring twelve fine varieties of double Roses. The varieties of R. rubifolia appear Hybrids, partaking largely of the character of R. multiflora; for while the Prairie Rose grows its flowers singly, these varieties are remarkable for the large trusses of flowers they produce. Whether
(Div. II.)
their introduction will greatly enrich the Rosarium is, I think, doubtful. Certain it is, they have not supported in this country the high character given them by our Transatlantic brethren. The Group is however in its infancy, and it would be premature to condemn them : those varieties we have hitherto seen appear best suited for Climbing Roses, and require no particular cultivation.

1. Anne Maria; flowers pale pink, their centre rose, of medium size, very double; form, cupped, distinct.
2. Altoniensis; flowers rose-colour.
3. Baltimore Belle; white, shaded with flesh, small and very double.
4. Beauty of the Prairies; flowers rosy red, striped with white, large and very double.
5. Caradori Allan ; flowers bright pink.
6. Eva Corinne; flowers light blush, large and double.
7. Jane; flowers lilac rose, of medium size, very double. Habit, robust and vigorous.
8. Linnean Hall Beauty; flowers pale blush, changing to white, very double.
9. Miss Gunnell; flowers delicate blush, tinged with buff, of medium size, double; form, cupped.
10. Mrs. Hovey; flowers fine white, large and full.

Pallida; see Superba.
11. Perpetual ; flowers rosy pink, changing to purple.
12. President; flowers deep pink, small and very double; form, compact. Flowers later than others of the Group.
13. Pride of Wasiington ; flowers pale rose, of medium size, double; form, cupped.
14. Ranunculiflora; flowers pale blush, small, fragrant.
15. Seraphim ; flowers pink, their centre rose, very double.
16. Superba ; flowers delicate pink; form, cupped.
(Pallida)
17. Triumphant; flowers deep brilliant rose, of medium size, very double; form, compact; foliage, large and handsome.
18. Virginia Lass.

## Group XXI.-THE BANKSIE ROSE.

The Banksiæ Rose, so named in compliment to Lady Banks, is a complete departure from the ordinary run of Roses : the flowers, indeed, resemble more closely those of the double-blossomed Cherry. The White variety, which is deliciously sweet, was introduced from China in 1807, and about twenty years later our gardens were enriched by the arrival of the Yellow one.

In " La Rose, \&c., par Dr. Deslongchamps," we find mention of a remarkable White Banksiæ Rose growing in the Jardin de la Marine at Toulon. It is now about thirty-four years old. In 1842 the trunk was 2 feet 4 inches in circumference at its base. It divided into six branches at a little distance from the ground, the thickest of which was 12 inches in girth. Its branches covered a wall 75 feet broad and 15 to 18 feet high; and were there greater space it could be covered, for the tree is subjected to severe pruning every alternate year to keep it within bounds; and the more it is pruned the faster does it seem to grow, often producing shoots 15 feet long in a year, and as thick as the thumb. The flowers are produced from the middle of April to the middle of May; and at the time that it is in full blossom it is calculated that there cannot be less than from 50,000 to 60,000 flowers on the tree. The effect is described as magnificent, almost magical.

In the same Work is mentioned a plant of the same variety, growing at Caserta, in the kingdom of Naples, the branches of which had climbed to the top of a large poplar tree 60 feet high. The poplar was dead, killed probably by the embrace of its insidious friend, whose branches almost exclude it from view, presenting, at the epoch of flowering, a most lovely spectacle.

There is now growing at Goodrent, Reading, the seat of Sir Jasper Nicholls, Bart., a Yellow Banksiæ Rose, planted out in the conservatory border. It produced last year above 2000 trusses of flowers, and there were from six to nine expanded Roses on each truss. It is trained up a wire to an horizontal wire fixed about three feet from the glass. There is a plant of the White variety in the same house, but with very few flowers on it.-W. A. Baston in United Gardeners' and Land-Stewards' Journal, Vol. 1847, p. 293.

The Banksiæ Roses are of very rapid growth, but they are not hardy, and can only be grown successfully out of doors against a wall; and if a dry warm border can also be secured for them it is all the better. They should be pruned in summer, immediately after they have flowered : the gross shoots, if any, should be cut out, and the plants well thinned, merely tipping the shoots that are left: these will then form new wood, which, cut back to three or four eyes in spring, will throw an abundance of flowers. There have arisen lately several new varieties, but they bloom indifferently in our climate, and we cannot say much in their favour. Unfortunately, these elegant Roses do not thrive well out of doors in the atmosphere of the metropolis.

1. Alba Grandiflora; flowers white.
2. Jaunâtre pleine; flowers primpose.
3. Jaune serin ; flowers bright yellow, larger, deeper in colour, and fuller than (Lutescens spinosa) the old Yellow.
4. Jaune vif; flowers bright yellow.
5. Odoratissima; flowers white, fragrant.
6. Philadelphieflora; flowers yellow, single.
7. Rosea ; flowers vivid rose, double; form, cupped.
8. Single White; flowers white, single.
9. White; flowers pure white, small and full; form, compact. Neat and exceedingly pretty. Very fragrant.
10. Yellow; flowers bright yellow, small and full, form, compact. Very pretty and distinct.

# CLASS II.-AUTUMNAL ROSES, 

BLOOMING FROM MAY TILL NOVEMBER, OR LATER, IE NOT PREVENTED BY FROST.

## ROSA BRACTEATA.

## Group XXII.-THE MACARTNEY ROSE.

The original Bracteata Rose was introduced from China by Lord Macartney in 1795. It is a shy seed-bearer, and consequently few varieties have been obtained from it. Perhaps the only one the Amateur will care for is the Maria Leonida, but the single is also beautiful. Both are of vigorous growth, but not very hardy. The best situation for them is a south or east wall, where they form most interesting objects, flowering during summer and autumn.

The plants are evergreen; the foliage dark, and shining as if varnished; which feature, in contrast with the milk-white apricot-scented flowers, is striking and beautiful.

We arrange here the Lucida duplex of florists, a desirable variety, apparently hybridized with the Macartney, forming a handsome Standard or Bush Rose.

The Berberiifolia Hardii, according to previous arrangements, finds place by the side of this species. We think it distinct enough to stand alone; but, as there is only one variety, we retain it in its accustomed place. This pretty plant, differing from all its congeners, was raised from seed by M. Hardy, of the Jardin du Luxembourg, from between R. involucrata and R. berberiffolia. The latter species has always been extremely delicate in Britain, baffling the skill of the ablest cultivators, although in its native habitats, in the north of Persia, it grows so freely that it is used for fire-wood. Our variety, alas! resembles too nearly the species: it is delicate, and has been pronounced by some unmanageable. It suffers greatly from mildew, damp, and cold. The best mode of treating it is to plant it in a peaty soil, in the sunniest and airiest spot in the garden, away from all trees and fences. Take it up every autumn, keeping it in a cold frame, where sheltered from rain and frost. There were at one time above 1000 plants of this Rose here.

1. Alba odorata; flowers white, with yellowish centre, large and full; form, cupped. Rarely opens well.
2. Alba simplex; flowers white, large and single; form, cupped; free bloomer (Grandifora) when trained against a wall. Very showy.
Double Blush; see Victoire Modeste.

Grandiflora; see Alba simplex.
3. Maria Leonida; flowers white, centre rosy, and sometimes creamy, large and full; form, cupped.
4. Nerriere; flowers yellowish white, their centre of a deeper tint than their margin, large and full ; form, cupped.
5. Scarlet Maria Leonida; flowers bright red; form, cupped.
6. Victorre Modeste; flowers pale rose, very large and full; rarely opens well.
7. Lucida duplex ; flowers of the most delicate blush, large and double; form, cupped. Habit, branching ; growth, vigorous ; foliage, particularly glossy and fine.
8. Berberiffolia $H_{\text {ardit }}$; flowers bright yellow, with a deep chocolate spot at the bottom of each petal, small and single; form, cupped. Habit, branching; growth, vigorous; shoots, slender.

## ROSA MICROPHYLIA.

Group XXIII.-THE MICROPHYLLA, OR SMALL-LEAVED ROSE.
This Rose is a native of the Himalaya Mountains, and also of China, and was introduced to England about twenty years since. It is a decided curiosity. The leaves are composed of numerous small leaflets, sometimes as many as fifteen ranging on the sides of the petiole; the branches are of a whitish brown, the outer bark often peeling off in autumn: they are almost destitute of prickles, but the broad sepals of the calyx are densely covered with them, owing to which the flower-buds are as rough as a hedgehog. The Microphylla appears to delight in a warm sandy soil: it is rather tender, and requires a wall to ensure the production of its flowers in full beauty. It requires very little pruning. No varieties have yet been raised to surpass the original.

Alba odorata; see Group XXII. "Macartney."

1. Carnea; flowers pale rose, of medium size, very double; form, cupped.
2. Coccinea; flowers bright rose, of medium size, very double; form, cupped. Cramoisie; see Violet Cramoisie.
3. Du Luxembourg; flowers deep pink, shaded with blush, large and full; form, cupped. Habit, branching; growth, moderate.
4. Grandiflora ; flowers rose, large; form, cupped.

Pourpre du Luxembourg; see Du Luxembourg.
5. Purpurea; flowers deep purplish rose; form, cupped.

Rosea or Rubra frolacea; see Violet Cramoisie.
Rouge ì centre Strié; see Striata.
6. Rubra, old or common ; flowers rosy carmine, margined with blush, large and full; form, globular. Habit, branching; growth, moderate.
7. Single; flowers bright red, large and single; form, cupped.
8. Striata; flowers crimson, striped with white.
9. Triomphe de Macheteaux; flowers blush, edged with rose, of medium size, full; form, cupped.
10. Violet Cramoisie; flowers light purplish crimson; form, cupped.
(Cramoisie) (Rosea, or Rubra Violacea.)

## ROSA DAMASCENA.

## Group XXIV.-THE FOUR-SEASONS ROSE.

The Four-Seasons Rose is a branch of the Damask species, now little heard of. We value it by name as the type of the lovely Damask Perpetuals, which furnish our gardens with rich and fragrant flowers so late in the year. The appearance of the latter, and, subsequently, of the Hybrid Perpetuals, both surpassing it in every property for which it has so long been valued, it is now justly superseded. The varieties are not very constant bloomers, but perfectly hardy, thriving under common treatment.

1. Blush ; flowers pale rose, semi-double; form, cupped.

Bullée; see Monstrous.
2. Clares; flowers delicate rose, margin blush, large and double; form, expanded.
De Trianon; see Group XXV. "Rose de Trianon." Mossy ; see Group XXXI. Perpetual Moss.
3. Monstrous; flowers blush, large and double ; form, globular. Pastana; see Scarlet.
4. Pompon ; flowers rose, very small and full; form, compact.
5. Rose, or Common ; flowers pale rose, of medium size, full.
6. Scarlet; flowers deep rose, tinted with purple, large and semi-double; form, cupped. A pretty colour, and most abundant summer bloomer, producing a fine effect on the tree.
7. White; flowers white, large and double; form, expanded.

## Group XXV.-THE ROSE DE TRIANON.

This Group of Roses is entirely new, and already contains some highly-desirable varieties. It is another branch of the Damask, originated by M. Vibert of

Angers. Let us hear what he says of them.-"I have formed a new division for an interesting Group of Perpetual Roses, obtained from several varieties which acknowledge the Rose de Trianon as their type-a plant I first made known. There are now several White kinds. Certain peculiar characters, and the prospect of a great increase of varieties, have induced me to separate them from other Perpetuals. They are desirable, from their decided characters: they are unique in form, colour, and the disposition of the flowers, which are generally very sweet. They are not more delicate than the Damask Perpetual, and are far more vigorous in growth."

This Group is as yet in its infancy; but, from the varieties we have already seen, we augur it will give birth to some large well-formed Roses. The flowers are mostly produced in small corymbs in the summer flowering, and the leaves gather in tufts near the ends of the shoots.

1. Adèle Mauz' ; flowers rose, large and full ; curious foliage.
2. Amanda Patenotte; flowers dark rose, large and full; form, globular. Habit, erect; growth, moderate.
3. Amandine; flowers pale rose, large and full.
4. Antigone; flowers dark mottled rose, produced in corymbs, large and very double; form, globular.
5. Arielle; flowers lilac rose, of medium size, full.
6. Blanche Vibert; flowers yellowish when first opening, changing to white, of medium size, full.
7. Crillon ; flowers flesh-colour, of medium size, full.
8. De Trianon; flowers rose, of medium size, double; form, cupped.
9. Delpiine Gay; flowers white, tinted with flesh, of medium size, full; almost spineless.
10. Duke of Devonshire ; flowers bright rose, large and full, fine and distinct.
11. Earl of $\mathrm{D}_{\text {erby }}$; flowers rose, their margin almost white, large and full; form, cupped. Habit, erect; growth, very vigorous; foliage, fine, the young leaves edged with red. A fine Rose.
12. Eliza Balcombe; flowers white, their centre inclining to flesh, small and very double; form, cupped. This variety appears to possess traces of the Noisette Aimèe Vibert, which has likely been the parent on one side.
13. Joasine Hanet ; flowers purplish red, produced in corymbs, of medium size, full.
14. Léonide Leroy; flowers white, slightly tinted with flesh, produced in corymbs, of medium size, full; form, globular.
15. Lesbie; flowers pale rose, produced in corymbs, of medium size, full.
16. Louise Bordillon ; flowers rose, large and full; form, cupped, fine.
17. Nıове́; flowers pale rose, produced in corymbs, of medium size, full.
18. Oliviér de Serres; flowers deep rose, large and full; foliage, singular. Habit branching. Growth vigorous.
19. Petite Marie ; flowers rose, of medium size, full; form globular.
20. Psyché; flowers flesh-colour, of medium size, full. A singular variety.
21. Sappho; flowers white, tinted with flesh, of medium size, double.
22. Sidonie; flowers salmon-rose, large and full; superb. Habit, erect; growth, vigorous.
23. Yolande d'Aragon; flowers deep pink, their margin lilac blush, large and full; form, cupped. Habit, erect; growth, robust. The flowers of this variety are produced in immense clusters in summer.

## Group XXVI.-THE DAMASK PERPETUAL.

A favourite old group of Autumnal Roses is this, chiefly descended from the old Monthly and Four Seasons, the varieties composing which are more remarkable for the delicious fragrance of their flowers, than for their size or symmetry of form. How delightful it is to wander through a plantation of Damask Perpetuals on a still moist morning in autumn, when the flowers are just expanding! It is not necessary to pluck them to inhale the perfume they inherit, for the very air is laden with their fragrance. Until of late they were justly and highly prized, but are now dropping away to make room for the "Hybrid Perpetuals," with which every Rose Amateur must be supposed to be familiar.

The Crimson Perpetual, or Rose du Roi, and the sports from it-Bernard, Mogador, and Striped Crimson-are the most beautiful of the group. The Rose du Roi was raised in the Garden of St. Cloud in 1812, of which the Count Lelieur was then superintendent. It was not, however, namedDu Roi by him in compliment to his Royal Master; he named it Rose Lelieur: but an officer of the King's household, captivated by its beauty, had determined it should bear the name of the King. A warm disputation arose. The Count maintained that it was his: he created it, and had a right to name it. When the question was submitted to higher authority, his arguments were overruled, and the Count, mortified, tendered his resignation.

The Damask Perpetuals should be Damask Roses blooming in the autumn; they ought to possess the spines and leaves of the Damask, by which they may be distinguished from other Autumnals. Although the "Crimson," and a few others, resemble the "French" more closely than the above, we retain them in their accustomed place, in preference to forming a new group. Some that have been classed here, rarely blooming in autumn, are referred to the Damask Group IV. All the varieties of this group require a rich soil: they are best grown on their own roots or on short stems: they are of moderate growth, differing so little in this respect, that this item of description is dispensed with.
(Div. II.)

1. Amiral Tourville; flowers violet red, of medium size, full.
2. Angelina ; flowers crimson purple, colour fine, of medium size, full; form, expanded. Habit, erect; growth, dwarf.
Antigone; see Group XXV. Rose de Trianon.
3. Antinous; flowers crimson and purple, variously shaded, large and full; form, cupped, good.
4. Armide ; flowers rose-coloured, very large and full; form, compact. Raised at Angers. Introduced in 1847.
5. Athos; flowers bright rose, large and full; form, compact. Raised in the vicinity of Paris. Introduced in 1847.
6. Belle Faber; flowers bright rosy crimson, sometimes tinted with purple, (Grande) very large and full; form, globular. Very sweet.
7. Belle Italienne; flowers deep rose, large and double; form, cupped.

7a.Beryard; flowers salmon, of medium size, full ; form, cupped. A beautiful (Madame Ferray) little Rose, a sport from the Crimson.
8. Bifera Venusta; flowers pale rose, of medium size, full.
9. Billiard; flowers fine peach, large and double; form expanded. Habit, (Georgina) erect; growth, dwarf. Foliage of a pale green. Blush; see Palmyre.
10. Carmin royale; flowers light crimson, very double; form, expanded.

Captain Rénard; see Crimson Striped.
Chabert; see Grandiflora.
11. Clair Duchâtelet; flowers rosy pink, fine clear colour, of medium size, very double; form, cupped.
12. Cglestina ; flowers rose, large and very double; form, compact. Fine.
13. Couronne de Beranger; flowers lilac red, of medium size, full; form, cupped.
14. Couronne de Pourpre; flowers purplish rose, large and double; form, cupped.
14a.Crimson ; flowers bright crimson, sometimes purplish, large and full; form, (Rose du Roi) cupped. A fine rose and very sweet.
Crimson Striped; see Striped Crimson.
Crimson Superb; see Mogador.
15. D'Angers; flowers pale rose, large and double. Very sweet.
16. D'Esquermes; flowers lively rose, large and full ; form, compact. A showy (Royale) rose, and very sweet. A good seed-bearer.
17. De Rennes; flowers bright red, large and very double; form, cupped.
18. De Montmorency; flowers vivid rosy crimson, large and very double; form, expanded; foliage, fine. Forms a handsome compact-headed tree.
De Trianon ; see Group XXV. Rose de Trianon.
19. Délice d'Hiver; flowers pink, tinted with lilac, their margin blush, large and double; form, cupped. Blooms very late in the year.
20. Desdemona ; flowers rosy purple, small and double; form, cupped. Distinct and very sweet.
21. Desespoir des Amateurs; lilac rose, worthless.
22. Deuil de Dumont d'Urvilee; flowers dark purplish crimson, spotted with chocolate, of medium size, double; form, cupped.
23. Douce Melie; flowers pale rose, of medium size, very double; form, (Ma Délice) cupped.
Du Ror; see Crimson.
24. Duc d'Enghien; flowers pale flesh, of medium size, very double; form, cupped.
25. Duchesse de Rohan; flowers rosy crimson, margined with lilac; large and full; form, compact. A good Rose.
26. Ebene; flowers violet purple, of medium size, very double. Of weak growth.
27. Emilie Duval; flowers pale rose, large and very double; form, cupped.
28. Ernestine Audiot; flowers pale rose, large and double.
29. Fantasque; Howers blush, tinged with pink, large and full; form, expanded. Feburier; see Groip IV. Damask, Madame Feburier. Ferox ; see Group IV. Damask, La Féroce.
30. Ferret ; flowers rose, of medium size, full.

Flon; see La Mienne.
Georgina; see Billiard.
Gloire des; see La Mienne.
Grande; see Belle Faber.
31. Grande et Belle; flowers purplish rose, very large and double; form, globular.
32. Grandiflora; flowers deep rose, very large and double; form, globular. (Chabert)
33. Henriette Boulogne; flowers rosy blush, large and full; form, compact.
34. Indigo; flowers dark purple, occasionally tinted with rosy crimson, large and double; form, expanded. Very distinct. Raised by M. Laffay of Bellevue.
35. Isaure Lablée; flowers pink, shaded with lilac, of medium size, very double; form, expanded. A very free bloomer.
36. Jean $\mathrm{H}_{\text {atchette; }}$; flowers lilac rose, large and double; form, globular.
37. Jenny Audiot; flowers rose, large and full.
38. Josephine Antoinette; flowers pink, margined with blush, large and full; form, globular. One of the best, and very sweet.
39. Julie de Krudner; flowers pale flesh; form, compact. Raised by M. Laffay of Bellevue.
40. Julie Delarocie; flowers deep rose, finely spotted, of medium size, full. Raised at Angers. Introduced in 1847.

Lady Elphinstone ; see Group XXVII. Hybrid Perpetual.
41. Lady Seymour ; flowers dark rose, spotted, of medium size, full. Raised at Angers. Introduced in 1843.
42. La Capricieuse; flowers crimson, of medium size, double. Very sweet. Raised at Montmorency.
43. La Favorite; flowers whitish flesh, sometimes striped with carmine. Raised at Bellevue. Introduced in 1847.
La Gracievse; see Group IV. Damask.
44. La Magnanime; flowers deep rose, very large and double.
(Perpetuelle d'Anvers also Damas Monstreux)
45. La Miniature; flowers pale rose. An abundant bloomer and very hardy, but small.
46. La Mienne; flowers beautiful rosy crimson, large and very double; form, (Flon also Gloire des) compact. Habit, erect. Forms a handsome bush or tree, with dense foliage.
47. Laurence de Montmorency; flowers rich rosy lilac, glossy, large and full; form, cupped ; fine. A superb Rose, and very sweet. Raised at Montmorency.
48. Lepage; flowers blush; worthless.
49. Lodoiska Marin; flowers bright rose, large and full.
50. Louis Philippe; flowers crimson, shaded with dark purple, large and double; form, expanded; colours rich and fine. A good seed-bearer.
51. Louis Puget ; flowers rosy blush, of medium size, full; form, cupped; fine in bud. Very sweet. Introduced in 1843.
Ma Dèlice; see Douce Mélie.
Madame Feburier; see Group IV. Damask.
Madame Ferray; see Bernard.
52. Madame Thélier; flowers flesh-colour, of medium size, double.
53. Marie Denise; flowers rose, large and full; form, globular.
54. Marjolin ; flowers blush, with rosy centre, large and full; form, cupped. A good rose.
55. Mathilde Jesse; flowers bright rose, very large and full; form, compact; fine. Raised by M. Laffay of Bellevue. Introduced in 1847.
56. Mauget ; flowers flesh-colour, of medium size, full; form, compact.
57. Minerva; flowers rosy pink, their margin of a lilac tint, large and full; form, compact. Fine foliage and habit, and very sweet.
57a.Mogadon; flowers brilliant crimson, often shaded with rich purple, large (Crimson Superb) and full ; form, cupped. Habit, branching ; growth, moderate. A superb kind.
Monstreuse; see La Magnanime;
58. Noel; flowers rose, tinted with lilac, of medium size, full; form, compact.
59. Odeiska ; flowers lilac rose, of medium size, full.
60. Palmyre; flowers blush, with rosy pink centre, of medium size, full ; form, (Blush) compact.
61. Panaché de Girardon; flowers pale flesh striped with red, of medium (Striped) size, double; form, cupped.
Pestina; see Group XXIV. Four Seasons.
62. Polyclète; flowers deep lilac, centre carmine. Raised by M. Laffay of Bellevue. Introduced in 1847.
63. Ponctuee; flowers bright rose, spotted with white, of medium size, very double; form, expanded.
64. Portland blanc ; flowers white, worthless.
65. Portland double; flowers deep rose, large and double.
66. Portlandica carnea; flowers flesh, semi-double; form, cupped.

Portlandica grandiflora; see Grandiflora.
67. Portlandica pomponiana; flowers deep crimson purple.
68. Pourpre; flowers deep purple, of medium size, semi-double.
69. Preval; flowers delicate blush, large and full; form, expanded.
70. Princess Royal ; flowers bright crimson, small and full; form, cupped. A delicate plant.
71. Prud'homine ; flowers bright rose, of medium size, full.
72. Polchérie ; flowers rich deep crimson, tinted with purple, large and double; form, cupped.
Queen of Perpetuals; worthless.
73. Requien ; flowers delicate blush pink, very large and very double; form, cupped. Distinct, and fine late in the year.
74. Rosalba; flowers bright purplish red, very large and double. Raised at Angers. Introduced in 1847.
Royale; see D'Esquermes.
75. Saint-Barthelemy ; flowers pale rose, of medium size, double; form, cupped.
76. Saint Fiacre; flowers violet and crimson marbled, of medium size, double; form, cupped. A good seed-bearer.
Scotch; see Group XXX. Perpetual Scotch.
Sisley; see Group XXVII. Hybrid Perpetual.
Six Juin ; see Group XXVII. Hybrid Perpetual.
Stantell; see Group XXX. Perpetual Scotch.
Striped ; see Panaché de Girardon.
77. Striped Crimson ; flowers rosy pink, sometimes striped, but oftener merely
(Captain Rénard) mottled with white, large and very double; form, cupped. A sport from the Crimson Perpetual. A plant of this variety growing here bore white flowers last season.
78. Surpasse Antinous; flowers deep crimson, of medium size, full.
79. Thiers; flowers deep rose, of medium size, full.
(Div. II.)
80. Torrida; flowers rich deep crimson.

Triomphe d’Anvers; see La Magnanime.
Triomphe de Montmorency; see de Montmorency.
81. Triomphe de Rouen ; flowers rose, sometimes blush, of medium size, full; form, compact. A good and pretty Rose in warm dry seasons.
82. Voluminetise; flowers rosy blush, worthless.
83. Warratah; flowers purplish crimson, of medium size, very double; form, cupped.
84. Zelpha; flowers pale flesh; worthless.

## Group XXVII.-HYBRID PERPETUAL.

** As the Class Hybrid Perpetual of many Catalogues is divided into four Groups by our
arrangement, should the Amateur not find any Variety in the present Group, he will likely
meet with it either in that which precedes, or one of the two which follows it.
How came we in possession of these lovely Roses which have so suddenly delighted us with their presence, forming, as they do, the most valuable Group among Autumnals? Their origin is various; doubtless, in many instances unknown. The greater part, however, have been raised by M. Laffay from between the Hybrid Bourbon or Hybrid Chinese and Damash Perpetual. Princesse Hélène, which was introduced in 1837, was the first striking variety that was obtained; Queen Victoria followed next; and in 1840 there were above twenty varieties enumerated in the Rose Catalogues. Several of these, however, were drawn from other Groups: one-fourth were Bourbon Perpetuals.

The Group before us, spoken of in reference to their external characters, might be called Hybrid Chinese blooming in the autumn. They are indeed fine Roses, quite hardy, and very sweet. They thrive under common treatment, and are suited alike for standards and dwarfs, for pot-culture and forcing. Indeed, nowhere are they out of place: they grow and flower well in the vicinity of London, and in the northern parts of England and Scotland.

1. Adèle $J_{\text {avon }}$; flowers blush, with rosy centre, of medium size, full; form, globular. Habit, branching; growth, moderate. A new style of Rose, producing corymbs with from 20 to 30 flowers each, but of doubtful merit. Raised in the vicinity of Paris. Introduced in 1847.
2. Alphonse $\mathrm{K}_{\mathrm{arr}}$; flowers flesh-coloured rose, paler at their margin, the flower-buds round and dark when young, large and very double; form, expanded. Habit, erect; growth, moderate. Raised in the vicinity of Paris. Introduced in 1847.
3. Ambal d'Esting ; flowers of a beautiful lilac red, of medium size, full;
'Byorndigerpetual.
form, cupped, fine. Habit, erect ; growth, moderate. Raised in the vicinity of Paris. Introduced in 1846.
4. Aricie; flowers rose, spotted with lilac blush, very large and very double; form, globular, rather loose. Habit, branching; growth, vigorous.
5. Athalante ; flowers deep lilac blush, large and very double.
6. Aubernon; flowers rich deep rose, large and full; form, cupped. Habit, branching; growth, moderate. A free bloomer; a superb PotRose, and very sweet.
7. Augustine Mouchelet; flowers rose, shaded with purple, the centre sometimes fiery crimson, large and full, usually produced at the end of a shoot in clusters of four or five; form, cupped. Habit, branching; growth, moderate. A fine Pot-Rose, and distinct.
8. Baronne Prevost; flowers clear pale rose, glossy, very large and full; form, compact. Habit, erect; growth, robust. A superb kind. Raised by M. Desprez of Yèbles. One of the largest.
9. Bouton de Flore; flowers rose, large and very double.
10. Calliope; flowers bright cherry, their centre white, of medium size, very double; form, expanded. Habit, branching; growth, dwarf.
11. Clementine Seringe; flowers deep rosy pink, shaded with lilac blush, very
(Pauline Plantier) large and full; form, expanded. Habit, erect; growth, (Mrs. Wood) robust. A superb Rose, and deliciously sweet. Introduced in 1840.
12. Celine perpetuelle; flowers delicate rose, their centre almost white, of medium size, semi-double. Raised at St. Radegonde. Introduced in 1846.
13. Comice de Marseilles; flowers rose, variable, of medium size, full; form, cupped. Introduced in 1847.
14. Commandant Fournier; flowers brilliant crimson tinged with purple, of medium size, very double; form, cupped. Habit, branching; growth, dwarf. A pretty Rose, of a fine colour, but not over large. Raised by M. Laffay. Introduced in 1846.
15. Comte de Montalivet; flowers violet and red, shaded, very large and double; form, globular. Habit, branching; growth, moderate. Raised in the garden of the Comte de Mondeville at St. Radegonde from seeds of William Jesse. Introduced in 1846. A decided acquisition. See Plate VIII.
16. Comte d'Egmont; flowers rich rose, the outer petals reflexing soon after expanding, and changing to blush, very large and very double; form, globular. Habit, erect; growth, moderate. Raised in the vicinity of Paris. Introduced in 1847. A good Rose, and very sweet.
17. Comte de Paris; flowers rosy lilac, glossy, sometimes purplish, very large
and very double. Habit, erect; growth, moderate. A noble Rose, and very sweet. Raised by M. Laffay. Introduced in 1839.
18. Comtesse de Rambutead; flowers fine peach, very large, and very double; form, cupped. Habit, erect; growth, vigorous. Flowers produced freely and constantly, often in clusters of 12 or 15 . Raised at St. Denis. Introduced in 1847.
19. Comtesse Duchâtel; flowers rose, sometimes slightly tinged with purple; large and very double; form, cupped, fine. Habit, erect; growth, moderate. A fine Rose, holding the flowers perfect a long time. Raised by M. Laffay. Introduced in 1844.
20. Coquette de Meudon ; flowers bright rosy carmine, of medium size, full; form, globular.
21. Cornet; flowers rose, tinted with purple, very large and double; form, cupped. Habit, branching; growth, vigorous. A very showy Rose, partaking somewhat of the nature of the Provence, whose scent it bears.
22. Cymedor; flowers dark red, peculiar colour, of medium size, double.
23. Désirèe Lansezeur ; flowers purple, small and full; form, globular.
24. Docteur Marjolin ; flowers crimson purple, changing to rose, of medium size, very double; form, cupped. Habit, erect; growth, dwarf. A little gem, beautiful when newly expanded; rather delicate. Raised by M. Laffay. Introduced in 1842.
25. Docteur Marx; flowers rich rosy crimson, glowing, very large and full; form, cupped. Habit, erect; growth, moderate. A superb Rose, and very sweet. Raised by M. Laffay. Introduced in 1842.
26 Duc d'Alençon ; flowers rosy crimson, pale in summer, but fine in autumn, of medium size, full ; form, globular. Habit, branching; growth, moderate. A good seed-bearer.
26. Duc d'Aumale; flowers rich purplish crimson, of medium size, double; form, cupped. Habit, erect; growth, moderate. A sweet and beautiful Rose, with finely-formed petals.
27. Duc de Chatres; flowers light rosy lilac. Of little worth.
28. Duc de Nemours; flowers crimson, large.
29. Duc d'Iscy; flowers brilliant scarlet when newly expanded, shaded with dark velvety crimson, large and semi-double; form, expanded. Habit, branching; growth, vigorous. A good seed-bearer. This may be called "an Autumnal Tuscany."
30. Duchesse de Galliera ; flowers bright rose, shaded with flesh colour, large and full ; form, cupped. Habit, erect ; growth, moderate. Raised in the vicinity of Paris. Introduced in 1847. A beautiful Rose, and very sweet.
31. Duchesse de Montpensier; flowers delicate rose, satin-like, their circumference blush, very large and full. Habit, erect; growth, vigorous. Raised in the vicinity of Paris. Introduced in 1847. A beautiful Rose in France, and very sweet.
32. Duchesse de Nemours; flowers salmon pink, rarely open well.
33. Duchess of Sutherland; flowers fresh rosy pink, very large and very double; form, cupped. Habit, erect; growth, vigorous. Raised hy M. Laffay. Introduced in 1839. One of the finest of autumnal Roses, although not the freest bloomer. A good seed-bearer.
34. Earl Talbot; flowers rose and lilac, shaded, very large and full; form, globular. Habit, erect; growth, vigorous. One of the largest of Roses, very sweet, and a fine variety for forcing.
35. Edward $J_{\text {EsSE }}$; flowers rich purplish crimson, often shaded with blackish purple, of medium size, double; form, cupped. Habit, branching; growth, moderate. A good seed-bearer.
Emma Dampierre; see Madame Emma Dampierre. Eugene Sue; see Aubernon.
36. Fidouline; flowers lilac, with rosy centre. A shy grower, and quite second-rate.
37. Fulgorie; flowers rosy lilac, with rosy crimson centre, very large and full; form, cupped. Rather coarse, but very sweet. Habit, branching; growth, moderate.
Général Allard ; see Group X. Hybrid Chinese.
38. Gévéral Morangiez; flowers delicate rose, small and full; form, cupped, fine. Habit, erect; growth, moderate.
39. Gerbe de Rose; flowers rosy lilac, double. An abundant bloomer. Raised by M. Laffay. Introduced in 1847.
40. Gloire d'Angers; flowers bright rose, large and full; form, cupped, fine. Raised by M. Boyau. Introduced in 1846.
41. Guilleber Slater; flowers purplish crimson, of medium size, full.
42. Gulistan ; flowers rosy lilac, marbled, large and very double.
43. Henry the Fourth; flowers flesh-colour, of medium size, full; foliage fine.
44. Jacques Lafitte; flowers bright rose, large and full; form, expanded. Habit, erect; growth, vigorous; the flowers often produced singly for some distance along the stem. The colour stands the sun well, and is clear and decided. Raised by M. Vibert. Introduced in 1846.
45. Julie Dupont; flowers rich rose, their centre rosy carmine when first opened, large and full; form, cupped. Habit, branching ; growth, moderate. A fine forcing Rose, and very sweet.
46. La Reine; flowers rose, often shaded with lilac, and sometimes with crim-
son, very large and full; form, cupped. Habit, erect; growth, moderate. A magnificent Rose, but varies much as to quality. Raised by M. Laffay. Introduced in 1843. See Plate IX.
47. La Renoncule; flowers bright cherry crimson, assuming a purplish tint before decaying, of medium size, full; form, globular. Habit, erect; growth, moderate. The flowers do not always open perfectly: when they do, the outline and arrangement of petals are unsurpassed.
48. La Vaillante Bergere; flowers delicate rose, of medium size, full; shoots almost spineless. Raised by M. Guillot of Lyons. Introduced in 1847.
49. Lady Alice Peel; flowers rosy crimson, large and full; form, cupped. Habit, erect; growth, moderate. A beautiful Pot-Rose, and very sweet.
50. Lady Elphinstone; flowers rosy crimson, large and double; form, cupped. Habit, erect; growth, moderate. A good seed-bearer.
51. Lady Fordwich ; flowers rich rosy crimson, with a purplish tinge, changing to pale rose soon after expanding, of medium size, full; form, cupped. Habit, erect; growth, moderate.
52. Lady Sefton ; flowers pink, very large and double; form, cupped. Habit, erect; growth, vigorous. Pretty and distinct in colour, but rather loose, and an inconstant autumn bloomer.
53. Lane; flowers rich purplish rose, sometimes vivid, large and full; form, expanded. Habit, erect ; growth, moderate. Raised by M. Laffay. Introduced in 1842. Occasionally fine.
54. L'Elégante; flowers brilliant rose, large and full; form, cupped. Raised by M. Laffay, by whom it is highly recommended. Introduced in 1847.
55. L'Inflexible; flowers rose, large and full; growth, vigorous; foliage fine. Introduced in 1847.
56. Lilacée; flowers pink, tinted with lilac, of medium size, very double; form, expanded. Habit, bránching, fine; growth, vigorous.
57. Lindley; flowers reddish purple, of medium size, full. Habit, branching; growth, moderate.
Louise Aimée; see Madame Aimée.
58. Louis Buonaparte; flowers rich deep vermillion, glowing, very large and full; form, cupped. Habit, branching; growth, vigorous. A beautiful Rose, fine either for a standard, pot, or pillar, and very sweet.
59. Madame Aimée; flowers rose, their circumference almost blush, large and full ; form, cupped. Habit, erect ; growth, moderate.


very large and full ; form, cupped. Habit, erect; growth, robust. Foliage very fine.
60. Madame de Belfort; flowers delicate rose, fading to flesh-colour, large and full.
61. Madame Desgaches; flowers rose, of medium size, full; form, globular. Habit, branching; growth, dwarf. This Rose is of an exquisite form ; the petals, too, are closely and beautifully disposed.
62. Madame Emma Dampierre; flowers pale rose, shaded with light crimson, of medium size, full ; form, compact. Habit, erect ; growth, moderate.
63. Madame Joley; flowers purplish crimson, very double; form, cupped; growth, moderate.
64. Madame Laffay; flowers rich purplish rose, large and very double; form, cupped. Habit, erect, fine; growth, vigorous. Too well known to need recommending. An excellent seed-bearer, and very sweet. Raised by M. Laffay. Introduced in 1839.
65. Madame Molroguier; flowers bright red, large and full.
66. Madame Trideaux ; flowers deep rose, very bright, of mediuin size; form, cupped.
67. Madame Verdier; flowers blush, of medium size, full; form, cupped, fine. Habit, erect; growth, moderate. A beautiful Rose, of a clear and pretty colour, but rather a shy grower.
68. Mardonius; flowers clear rose, changing to white, of medium size, double. Raised by M. Beluze of Lyons.
69. Maréchal Soult ; flowers rosy lilac, shaded with purple, of medium size, full; form, compact. Habit, erect; growth, moderate.
70. Marguerite d'Anjou; flowers delicate rose, satin-like, large and full. Raised by M. Boyau. Introduced in 1847.
71. Marie Leckzinska; flowers flesh-colour, with rosy centre, of medium size, full.
72. Marquis de Moyria ; flowers rose, large and very double.
73. Marquis of Ailsa; closely resembles, if not identical with, Docteur Marx.
74. Marquisa Boccella; flowers delicate pink, their circumference almost blush, large and full; form, compact. Habit, erect; growth, robust. A beautiful Rose, and very sweet; the petals small in comparison with others of the group, but more numerous. Raised by M. Desprez at Yébles.
75. Mathilde Jourdeuil; flowers bright pink, paler at their circumference, large and full; form, cupped. Habit, branching ; growth, moderate. A first-rate Rose, and very sweet.
76. Melanie Cornu ; flowers crimson, tinged with purple, very large and full; form, cupped. Habit, erect; growth, vigorous. A fine Rose in warm seasons; an excellent variety for forcing, and very sweet.
77. Méropé; flowers delicate pink, large and double.
78. Montaigne; flowers deep rose, of medium size, full; form, globular. Raised by M. Vibert. Introduced in 1846.
79. Mrs. Cripps ; flowers clear deep pink, of medium size, very double; form, expanded. Habit, branching; growth, moderate. Uncertain, though often very pretty late in the year.
80. Mrs. Elliot; flowers purplish rose, very large and very double; form, cupped, fine. Habit, erect; growth, vigorous. A beautiful Rose, with fine large petals, and handsome foliage. Raised by M. Laffay. Introduced in 1840.
Mrs. Wood; see Clementine Seringe.
81. Newton; worthless.

Pauline Plantier; see Clementine Seringe.
84. Polybe; flowers pale lilac, with rosy centre, of medium size, full; form, globular. Raised by M. Laffay, by whom highly recommended. Introduced in 1847.
85. Poupre royale; flowers deep violet, edged with blackish purple, velvety, large and full; form, compact. Raised by M. Laffay, by whom highly recommended. Introduced in 1847. I remember seeing this Rose when at Bellevue, and setting a less value on it than its worthy owner did.
86. Prince Albert; flowers rich crimson purple, large and full; form, compact. Habit, branching; growth, moderate. Uncertain out of doors, but a good forcing Rose, and very sweet.
87. Prince of Wales; flowers rosy lilac, produced in clusters, very large and very double; form, cupped. Habit, branching; growth, vigorous. Distinct and good.
88. Princesse Adelaide; flowers bright pink, of medium size, very double.
89. Princesse Belgiojosa; flowers deep rose, large and full; form, globular, resembling the Cabbage Rose. Raised by M. Vibert. Introduced in 1847.
90. Princesse Hélène; flowers rosy purple, of medium size, very double; form, globular. Habit, erect; growth, moderate. A most abundant bloomer, when in full vigour.
Prudence Rgeser; see Group XXXVIII. Noisette.
Queen; see La Reine.
91. Queen Victoria; flowers bright rosy purple, of medium size, very double.
92. Rachel ; flowers bright rose, large and double.
93. Regulata; flowers rosy lilac, of medium size, full; form, compact, very regular.
94. Reine de la Guillotièe; flowers dark purplish crimson, large and full; form, compact. Habit, erect; growth, vigorous. Occasionally fine out of doors; but better adapted for forcing.
95. Reine de Lyon; worthless.
96. Reine des Fleurs; flowers rosy pink, their circumference rosy lilac, very large and full; form, globular. Habit, erect; growth, robust. A superb Rose, with handsome foliage. Raised in the vicinity of Paris. Introduced in 1847.
97. Reine du Matin ; flowers pale glossy lilac, of medium size, full; form, compact.
98. Renufe d'Osmond; flowers clear purplish rose, of medium size, double; form, cupped. Habit, erect; growth, dwarf.
99. Rivers ; flowers rosy crimson, often vivid, usually produced in clusters, very large and full; form, compact. Habit, branching; growth, robust. A good forcing Rose, and occasionally fine out of doors. Raised by M. Laffay. Introduced in 1839.
100. Robin Hood; fiowers brilliant cherry, large and full; form, globular. Habit, branching; growth, vigorous. A desirable variety, and very sweet.
101. Ronsard; flowers crimson-amaranth, of medium size, full. Raised by M. Vibert. Introduced in 1847.
102. Sisley; flowers rosy crimson, of medium size, full. A shy grower.
103. Sixth of June; flowers bright rose, of medium size, very double; form, compact. Habit, branching; growth, dwarf.
104. Titus Livius; flowers delicate rose, of medium size, double. Raised by M. Vibert. Introduced in 1847.
105. William Jesse; flowers light crimson, tinged with purple, very large, and very double; form, cupped. Habit, erect; growth, moderate. A magnificent Rose, but an uncertain autumn bloomer. A good seedbearer.
106. Zenophon ; flowers red.

## Group XXVIII.-THE BOURBON PERPETUAL.

This is a divison embracing the varieties of Hybrid Perpetual, in which the characters of the Bourbon Rose are strikingly developed. They are of dwarf and compact growth, as Standards, short-lived, seldom forming fine heads. They form beautiful objects grown as Dwarfs, or Dwarf Standards; and, if planted in a
(Div. II.)
rich soil, are the most certain of Autumnals: it is only necessary to keep them growing, for every new shoot formed will bear bloom. The flowers are not large, but they are well formed, and usually produced in clusters.

1. Cadoudal ; flowers clear rose, of medium size, full.
2. Clemence Ruffin; flowers rosy lilac, their circumference clear flesh, of medium size, full.
3. Clementine Dutal; flowers glossy pink, fading to blush, of medium size, full; form, compact. Habit, erect, fine; growth, moderate. An abundant bloomer. Raised at Montmorency.
Comtesse de Rambuteau; see Group XXVII. Hybrid Perpetual.
4. Comtesse Jacbert; flowers clear peach, paler at their circumference, large and full; form, globular. Habit, erect; growth, moderate; foliage, fine. Raised by M. Laffay, by whom it is highly recommended. Introduced in 1847.
厄. Coquette de Bellevue; flowers cherry-colour spotted with white; small and full ; growth, dwarf.
5. Coquette de Montmorency ; flowers bright cherry, of medium size, full; form, cupped, exquisite. Habit, erect; growth, dwarf. A very pretty Rose, but a rather shy grower.
6. De Neuilly ; flowers rose-colour, large and full; form, globular. Habit, erect, fine; growth, moderate. A superb forcing Rose, and very sweet. Rarely flowers well out of doors. Raised in the vicinity of Paris. Introduced in 1835.
7. Don Alvar ; flowers rosy lilac, of medium size, full ; form, cupped. Habit, erect; growth, robust. Uncertain; the petals sometimes elegantly disposed.
8. Duboyrg; flowers white, shaded with rose, large and very double; form, expanded. Habit, branching; growth, vigorous. A free seedbearer.
9. Duchesse de Montmorency; flowers pink, sometimes spotted and shaded with lilac blush, of medium size, full; form, cupped. Habit, branching; growth, dwarf. A pretty Rose, but a shy grower.
10. Elise Miellez; flowers rosy lilac, of medium size, full. An abundant bloomer.
11. Ernestine de Barante; flowers bright rose, small and fuil. Habit, (Pompon) branching ; growth, dwarf. A pretty morceau.
12. Eugénie Guivoiseau; flowers rosy carmine, their centre almost white, of medium size, full; form, cupped. Habit, erect; growth, moderate. A pretty and desirable Rose.
13. Général Merlin ; flowers light rosy pink, of medium size, very douible; form, cupped. Habit, erect, fine; growth, moderate. A pretty Rose. Gloire d'Alger; worthless.
14. Gloire de Guerin ; flowers rich deep cherry, of medium size, full; form, cupped. Habit, branching ; growth, dwarf.
15. La Bouquetière; flowers pale rose, large and double; form cupped. Habit, erect; growth, moderate; foliage, fine. Raised by M. Laffay. Introduced in 1843. A good secd-bearer.
16. Lelia ; flowers cherry pink, lively, large and double ; form, cupped. Habit, erect; growth moderate.
17. Leonie Verger; flowers deep rosy pink, small and full; form, globular. Habit, branching; growth, small. A pretty and distinct little Rose Raised in the garden of the Comte de Mondeville at St. Radegonde. Introduced in 1846.
18. Madame Fâvre; flowers reddish carmine, shaded with violet, of medium (Louise Fâure) size, full.
19. Madame Lucie Astaix; flowers rose, shaded with carmine, of medium Lucie Astaix size, very double.
20. Madame Morel; flowers rosy carmine, their centre whitish, large and full.
21. Nadine Faye; flowers clear pink, of medium size, very double; form compact.
22. Pauline Buonaparte; flowers pure white, small and full.
23. Pauline Levanneur; flowers clear rose, tine, large, and very double; form, compact. Habit, erect; growth, moderate. A rather shy grower. Raised in the vicinity of Paris. Introduced in 1843.
Pompon; see Ernestine de Barante.
24. Pompon de St. Radegonde; flowers cherry-colour, small, and very double; form, cupped. Habit, branching; growth, dwarf. A very neat and pretty Rose, blooming freely. Raised in the garden of the Comte de Mondeville at St. Radegonde. Introduced in 1846.
25. Princesse de Jonville; flowers bright rose, of medium size, very double.
26. Princesse de Salerne; flowers clear flesh, of medium size, full. Raised in the vicinity of Paris. Introduced in 1846.
27. Psyché; flowers rosy crimson, of medium size, full. Habit, branching; growth, dwarf.
Reine de Fontenay; worthless.
28. Thibault ; flowers bright rosy pink, of medium size, full; form, cupped. Triumphant; worthless.
29. Vicomtesse de Belleval; flowers clear rose, with a purplish lilac tint, of medium size, very double; form, globular," fine. Habit, erect; growth, moderate. Distinct and goorl. Raised at St. Radegonde. Introduced in 1846.

## ROSA INDICA.

## Group XXIX.-THE ROSE DE ROSOMÈNE.

Whence arose the Gloire de Rosomène, the type of this group, it is difficult even to conjecture. It was raised by M.Vibert, but I believe he knows not from what source. The brilliancy of the flowers caused some stir when it was introduced, and cultivators have long been striving to obtain full Roses to vie with it in colour. I have raised several seedlings, some more brilliant, but none more double. This object has yet to be accomplished, and the Géant des Batailles is a broad stride in the right direction. All the kinds of this group do not grow so vigorously as the type: some are moderate growers, and Grand Capitaine is a decided dwarf. The Gloire de Rosomène suffers from severe frost: the progeny is hardy.

1. Bossuet; flowers rich deep cherry-colour, large, and very double; form, cupped. Habit, branching; growth, moderate; the young shoots and leaves, chocolate colour.
2. Brèon ; flowers light carmine, sometimes rosy pink, of medium size, full; form, expanded. Habit, branching ; growth, dwarf. A distinct and pretty Rose.
3. Cardinal Tancin; flowers pale carmine, their centre whitish, large, and full. Quite second rate.
4. Comte d'Eu; flowers varying from light to deep carmine, very large and double; form, cupped. Habit, branching; growth moderate. A distinct and beautiful Rose.
j. Eclair de Jupiter; flowers light crimson scarlet, the claw of the petals white, large, and semi-double; form, cupped. A fine Pillar Rose, blooming in clusters. Very showy.
5. Enfant d'Ajaccio; flowers bright cherry, large and full; form, cupped. (Souvenir d'Anselmne) Habit, branching; growth, vigorous; the young leaves chocolate colour. A beautiful Rose in fine weather: uncertain at other times.
6. Géant des Batailles; flowers brilliant crimson, shaded with purple velvet, large, and very double; form, expanded. Habit, erect; growth, moderate. A beautiful Rose; see Plate X.
7. Gloire de Rosomène; flowers crimson scarlet, velvety, sometimes shaded with purple and striped with white, large and semi-double; form, cupped. Habit, branching; growth, vigorous, producing the flowers in clusters. A fine Pole Rose. A free seed-bearer.
8. Grand Capitaine; flowers crimson scarlet, rich, yet fiery, of medium size, very double; form, cupped. Habit, branching; growth, dwarf. A beautiful Rose, growing best on its own roots.

9. Labédoyère; flowers deep purplish red, large and full; form, cupped. Habit branching; growth, moderate. Uncertain, but sometimes superb. Raised by M. Foulard.
10. Roblin ; flowers rosy red, of medium size, full; growth, dwarf.
11. Roch Plantier; flowers carmine, the claw of the petals white, large, and full. Quite second-rate.

## ROSA SPIMOSTSSIMA.

## Grour XXX.-THE PERPETUAL SCOTCH.

These are Scotch Roses, hybridized, probably, with the Damask Perpetual, and blooming in the autumn. There are but three varieties belonging to the Group; and the Stanwell is, perhaps, the only one worthy of the attention of the Amateur. It is among the first to unfold its delicate blossoms, flowering in May, and throughout the summer and autumn, till arrested by frost. It is deliciously sweet: some say it has the fragrance of the Attar of Roses; but it appears to me more closely to resemble the Provence Rose in this particular.

1. Estelle; flowers rose, small and double.
2. Sсотсн; flowers pale rosy blush, large and double; form, expanded ; growth, moderate.
3. Stanwell; flowers rosy blush, their centre often pink, large, and double; form, cupped. Habit, branching; growth, moderate. Raised at Stanwell; hence its name.

## ROSA CONTIEOIIA.

## Grour XXXI.-THE PERPETUAL MOSS.

Here we have a group containing five Moss Roses blooming in the autumn. The flowers are not oppressed with moss, although they have sufficient to denote their origin. I think it likely that No. 3, which is the handsomest of all, was raised from the Crimson Perpetual. Three new varieties have been added during the past year; and there is no doubt of this becoming eventually one of the most interesting groups. They require the same treatment as the Moss.

1. Général Drovot; flowers purplish crimson, of medium size, double. Growth, vigorous. Raised at Angers. Introduced in 1847.
2. Perpetual White; flowers white, of medium size, double; form, expanded, blooming in large trusses, very mossy, but produced sparingly in the autumn.
3. Perpetuelle Mauget; flowers bright rose, of medium size, full; form, cupped ; growth, moderate. A beautiful Rose; see Plate XI.
4. Ponctu'ee; flowers rose, spotted with white, semi-double. Raised at Angers. First offered for sale in 1847.
5. Semi-double; flowers deep rose. Raised at Angers. Introduced in 1847.

## ROSA SEMPEREMORENS.

## Group XXXII.-THE CRIMSON CHINESE ROSE.

The original of this group was introduced from China in 1789. There are perhaps no Roses more beautiful late in the year, when the autumn is mild. I was particularly struck with this in the autumn of 1846. A few cold misty days had obscured their brightness, when warm weather succeeded, and the buds, which the wet and cold had sealed, suddenly expanded, producing a brilliant show in November. There are some very handsome blood-coloured Roses here. All are of a branching habit, and of moderate growth. Some do not thrive well as Standards; but all luxuriate on their own roots, and form pretty and interesting objects budded on dwarf stocks. They thrive best in a rich soil, with close pruning: there are none better for planting in clumps on lawns or in the flowergarden, for they produce a great number and regular succession of flowers throughout the summer and autumn.

1. Abbé Mioland ; flowers reddish purple, often streaked with white, large and very double; form, globular. A good Pot-Rose.
2. Alba; flowers white, tinged with straw-colour, of medium size, double; (White) form, cupped. A good Rose for planting in masses.
3. Alcine; flowers cherry crimson, tinged with purple and lilac blush, large and double; form, cupped. A fine Pot-Rose.
4. Amphitrite; flowers dark purplish crimson.
5. Anais; flowers rose, large and very double; form, globular.
6. Assuérus; flowers blackish crimson, large and double; form, cupped.
7. Augustine Hersent; flowers pink, of medium size, very double; form, cupped. A pretty Rose, blooming freely, most suitable for planting in masses.
8. Bardon ; flowers white, their centre flesh, large and very double; form, cupped. A free bloomer, and excellent for planting in masses.
9. Baronne Delaage; flowers of the richest crimson, of medium size, full; form, globular.
10. Beau Carmin ; flowers crimson, suffused with purple, velvety, of medium size, very double.


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11. Belle de Florence; flowers pale cherry, produced in elegant clusters, of medium size, semi-double; form, cupped. A showy Rose.
12. Belle Emilie; flowers blush, their centre flesh, large and double; form, (Theresia Stravius) expanded. Excellent for planting in masses.
13. Carmin d'Yèbles; flowers deep carmine, of medium size, double; form, (Carmin Superbe) cupped. Raised by M. Desprez. A pretty Rose, unique in form.
14. Citoyen des deux Mondes; flowers deep blackish crimson, of medium size, full; form, expanded.
15. Cramoisie Éblouissante; flowers vivid crimson, small and full. (L'Éblouissante)
16. Cramoisie Supérieure; flowers velvety crimson, of medium size, very double ; form, cupped ; exquisite in bud. A good Pot-Rose.
17. Duc de Bordeaux; flowers deep purplish crimson.
18. Duchess of Parma ; flowers purplish crimson.
19. Duchess of Kent; flowers creamy white, sometimes beautifully edged with rose, then very pretty and distinct, small and full; form, cupped.
20. Eugène Beauharnais: flowers amaranth, the buds beautiful when first (Prince Eugène) unfolding, sometimes dying off blackish crimson, large and very double; form, cupped.
21. Fabvier; flowers crimson scarlet, of medium size, semi-double; form, expanded. One of the most brilliant of Roses, very showy, and a superb kind for planting in masses.
22. Général Lawestine; flowers bright red, of medium size, full.
23. Gouvion St. Cyr; flowers rose, changing to crimson, of medium size, full; form, globular. Very showy.
24. Henry the Fifth; flowers crimson scarlet, often striped with white, large and very double; form, cupped.
25. Jacques Plantier; flowers brownish red, of medium size, full.
26. Liady of the Lake; flowers pure white.
27. La Régulière; flowers clear reddish crimson, of medium size, full. L'Éblouissante; see Cramoisie Éblouissante.
28. L'Hospitalière; flowers bright amaranth.
29. Leonidas ; flowers vivid rose, changing to dark crimson, of medium size, double; form, globular.
30. Louis Piilippe; flowers dark crimson, the edges of the centre petals almost white, of medium size, full ; form, globular. Raised at Angers.
31. Madame de Crequi; flowers blush, carmine, and crimson, variable, of medium size, very double; form, cupped. A lively and pretty Rose.
32. Madeline; flowers bright cherry colour.
33. Marjolin ; flowers rosy crimson to deep crimson, variable, large and full; form, cupped. A fine Pot-Rose. Raised at the Jardin du Luxembourg.

Nemesis; see Group XXXIV. The Fairy Rose.
34. Oriflamme; flowers bright carmine.
35. President d'Olbecque; flowers cherry red; form, cupped.
36. Prince Charles; flowers brilliant crimson, often suffused with light purple, of medium size, full; form, cupped.
Prince Eugene; see Eugène Beauharnais.
37. Poupre Éclatante; flowers deep crimson.
38. Reine d'Angleterre; flowers crimson, tinged with purple, of medium size, very double; form, cupped.
39. Roi des Pourpres; flowers purplish crimson, the centre petals tinged with blush, large and full; form, cupped.
40. Romeo; flowers dark red.
41. St. Prix de Breuze; flowers rich deep crimson, their centre rose, of medium size, full; form, globular.
42. Sanguinea; flowers crimson, small and very double.

Theresia Stravius; see Belle Emilie.
43. Victoire d'Aumay; flowers dark crimson; form, cupped.

## ROSA TNDICA.

## Group XXXIII.-THE CHINESE, OR MONTHLY ROSE.

The varieties of this and the preceding species are included in one group by many cultivators; and in some of the hybrids the balance is so nicely adjusted, that it is hard to say to which species they belong. But the majority are well marked in character. Compare, for instance, Alba, Cramoisie Supérieure, Fabvier, \&c., of the former group, with Archduke Charles, Comble de Gloire, and Général Soyez, of the present. Archduke Charles, and many others classed here, are distinct and beautiful as variegated Roses: they expand rose and white, soon becoming mottled with, then changing wholly to, crimson, from the action of the sun's rays. Strange that he who bids the colours of other roses fly at his approach should lend these a deeper and more brilliant tint!

The varieties of this group are also of even growth, although more robust than the Crimson Chinese : they are suited for the same purposes, and, in addition, form fine Standards, thriving under common treatment. It has been said that the Bourbon Roses are hardier than the Chinese, which has led many to suppose that they are easier of culture ; but nothing could be more contrary to fact. The Bourbons are less susceptible of frost; but if we except the varieties hybridized with the Tea-scented, which are marked thus*, the Chinese are of the freest growth. The first Chinese Rose was introduced from China in 1789. The varieties which have sprung
from it are too numerous to be described, and withal resemble each other so closely, that we content ourselves with making a selection of the best.

1.     * Aimée Plantier; flowers fawn colour, shaded with blush.
2. *Alexina; flowers creamy white, large and very double; form, compact.
3.     * Annette Gysels; flowers white, tinged with sulphur; form, cupped.
4. *Anteros; flowers white, with creamy centre, large and full; form, cupped. A capital Forcing Rose, but does not at all times open well out of doors.
5. Archduke Charles; flowers rose, their margin almost white when newly expanded, gradually changing to rich crimson, from which peculiarity the plant bears flowers of various tints at the same time; very large and full ; form, expanded. A fine Rose.
6.     * Belle Ferronniere; flowers blush, with flesh centre, often tinged with pink, very large and double; form, cupped. Very showy, and a good Rose for planting in masses.
7. Belle Isidore; flowers crimson and blush variously shaded, sometimes opening nearly white and dying off crimson, large and full; form, compact.
8. Blanc Sarmenteux; flowers white, large.
9. *Boisnard; flowers sulphur, with yellowish centre, large; form, cupped.
10.     * Camellia Blanc ; flowers white, large and very double; form, globular. A free bloomer, but rather loose.
11. *Caroline de Berri; flowers flesh colour, tinged with fawn; form, cupped.
12. *Cels Multiflora; flowers white, their centre flesh, large and full; form, cupped. A good forcing Rose; flowers very freely.
13.     * Clara ; flowers white, with creamy centre, outer petals often a little rosy, very large and full ; form, cupped. A good forcing Rose.
14. *Clara Sylvain ; flowers pure white, large and full; form, cupped. A very (Lady Warrender) fine Rose, suitable either for the borders or the greenhouse.
15. Comble de Gloire; flowers lilac, shaded with reddish purple, variable, (Gros Charles) very large and full ; form, expanded.
16. Desfontaines; flowers pure white, large and double; form, cupped.
17. *Don Carlos; flowers white, with salmon-coloured centre, large and very (Jeannie Deans) double; form, cupped.
18. Etna ; flowers blush, often edged with crimson, variable, very large and full; form, expanded.
19.     * Eugène Hardy; flowers white, their centre flesh-colour, of medium size, full; form, cupped. This variety, being of a drooping habit, does not shew its beautiful flowers to advantage unless grown as a Standard.
20. Eugène Pirolle; flowers delicate pink.
21. Fanny Duval; flowers white, their centre flesh, large and full; form, cupped.
22. Fénélon du Luxembourg; flowers rose, changing to bright red, large and full.
23. Florus; flowers deep red, variable, double; form, cupped.
24. Général Soyez; flowers cherry crimson, very large and full; form, cupped; A beautiful Rose in the autumn.
25. Grandidier; flowers rosy crimson, changing to pale rose, large and full; form, cupped.
Gros Charles; see Comble de Gloire
26. Hanneloup; flowers rosy crimson, shaded with lilac blush, of medium size, full ; form, globular.
27. *Icteros; flowers cream, their centre straw colour, large and full; form, cupped.
Infidélité de Lisette; see Madame Bureau.
28. Jeune Arcole; flowers rosy lilac, large and full.
29. Joseff Deschiens; flowers dark crimson, their centre rosy purple, of medium size, full; form, cupped. An excellent Rose in fine weather.
30. Le Caméléon; flowers whitish pink, often changing to blackish crimson before decaying, of medium size, double; form, expanded.
La Séduisante; see Virginale.
La Superbe; see Triomphante.
31. Le Camöens; flowers rose colour shaded.
32. Lorrainii ; flowers French white; form, cupped.
33. Madame Bréon; flowers rich rose colour, sometimes a little tinged with salmon, very large and full ; form, compact. A beautiful Rose, with handsome foliage. See Plate XII.
34. Madame Bureau ; flowers white, their centre inclining to straw, large and (Infidélité de Lisette) very double; form, cupped. One of the finest White (Madame de Rohan) Autumnal Roses grown.
35.     * Madame Chavent ; flowers blush, shaded with pink, very large and double; form, cupped. Showy.
36. Madame Desprez; flowers white tinged with lemon, large and very double; form, cupped.
Madame de Rohan; see Madame Bureau.
Madame Goubault; see Group XXXV. Tea-scented.
Madame Lacha rme; see Virginale.
37. *Miellez; flowers pale lemon, changing to white, of medium size, double; form, cupped. A very desirable variety.
Mrs. Bosanquet; see Group XXXVI. Bourbon.
38. Napoleon; flowers blush, mottled with pink, large and double; form, cupped. Fine.
Nemesis; see Group XXXIV. The Fairy Rose.
39. Olympe; flowers rosy lilac.


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40. Pajol ; flowers purplish rose, large.
41. Prince of $W_{\text {ales }}$; flowers rosy purple, shaded.
42. Reine de Lombardie; flowers blush, changing to rosy crimson, large and full; form, expanded.
43. *Rival de $\mathrm{P}_{\text {iestumr }}$; flowers yellowish white, large and full.
44. Romain (Desprez); flowers clear red, of medium size, full.
45. Rubens; flowers blush, lilac, and crimson, changeable, very large and full; form, cupped.
46. Stevens', or Ronalds'; flowers pink shaded, large.
47. Sully; flowers pale rose, shaded with fawn; form, cupped.
48. *Sulphurea Superba; flowers sulphur, large; form, cupped.
49. Tancredi ; flowers light purple, suffused with crimson, variable, large and full ; form, cupped. A distinct and desirable variety, the tree well clothed with shining foliage.
50. Tête de Négre; flowers rose, shaded with crimson, large and full.
51. Triomphante; flowers crimson, tinted with light purple, often dull in (La Superbe) colour from the purple predominating, large and very double; form, cupped.
52. Triomphe de Gand; flowers rose, mottled, large and double.
53. *Virginale; flowers flesh colour, of medium size, full; form, globular. A (La Séduisante) fine Forcing Rose, but seldom opens clean and good out (Madame Lacharme) of doors.
54. *Virginie ; flowers rose shaded, large and full; form, cupped.

## ROSA INDICA.

## Group XXXIV.-THE LAWRENCEANA, OR FAIRY ROSE.

The first of these interesting Roses was introduced from China in 1810. The varieties form pretty objects cultivated in pots, rarely exceeding a foot in height. Thousands of them are sold in our markets every year, and beautiful they are when covered with their tiny blossoms. In dry soils the Fairy Roses may be planted in masses, also as edgings for the beds in the Rosarium : for the latter purpose the hardiest kinds should be chosen. They require the same treatment as the varieties of the succeeding group.

1. Alba, or Blanc; flowers white, delicate. Blush ; see Fairy.
2. Caprice des Dames; flowers vivid rose.
3. Dieu donné ; flowers pink.
4. Duc de Chartres; flowers rose.
5. Fairy ; flowers pale pink.
(Blush)
6. Gloire des Lawrenceanas; flowers dark crimson.
7. Jenny ; flowers bright crimson.
(Rubra)
8. La Desirée; flowers crimson.
9. La Laponne; flowers pink.
10. Multiflora; flowers rose.
11. Nemesis; flowers crimson, changing blackish, larger and more robust in habit than the others.
12. Nigra; flowers very dark crimson.

Petit Laponne; see La Laponne.
13. Pompon Bijou; flowers pale rose.
14. Pourpre brun; flowers purplish crimson.
15. Retour du Printemps; flowers bright rose.

Rubra; see Jenny.

## ROSA INDICA.

Group XXXV.-THE TEA-SCENTED ROSE.
In 1810 the Blush Tea-scented Rose was introduced from China, and fourteen years later the Yellow variety was received from the same country. They have given birth to a very numerous family, some remarkable for their large thick petals; others for possessing a strong tea-like scent; and others for the delicacy and bewitching tints of the flowers. It has been said, both by French and English writers on this subject, that the Yellow, although a fertile seed-bearer, never produces varieties worthy of notice. As if to redeem its character from this aspersion, a few years ago it produced, in this country, the Devoniensis, one of the handsomest of the group, raised by Mr. Foster of Plymouth, with others from the same parent, one of which, a Noisette of a yellow cast, is now in the possession of Messrs. Lucombe and Pince of Exeter.

It must be admitted that this beautiful group is somewhat difficult of culture. They require a rich well-drained soil, close pruning, and, if grown out of doors, a dry warm border and protection from frost. The practice of removing them from the ground for protection during winter, and again transferring them to their places in the Rosarium in spring, cannot be too highly deprecated. To remove a plant once endangers its growth and perfect flowering the first year, and to remove it twice more than doubles the risk of failure. Tea-Roses may be divided into two classes: "Ligneous"," represented by the Comte de Paris,

[^15]and "Herbaceous," of which we may instance the Yellow. The former, which are marked $\dagger$, are far hardier than the others, and form good Standards. If the latter are grown as such, they must be thoroughly protected during winter. -See p. 126, Div. I.

If trained to a wall with a south or east aspect the Tea-Roses grow vigorously, and flower in great beauty, much earlier and finer than in the open ground, producing a constant succession of flowers for one half of the year. They also flower well grown in pots and plunged in the open ground, if removed to a cold frame for protection during winter. But for Pot-culture under glass, for Forcing, and for planting out in the Conservatory, they are unsurpassed.

There are some fine specimens in the border of the Conservatory at the Horticultural Society's Gardens at Chiswick, and there are others in the Conservatory at Orleans House, Twickenham. At the latter place, the vigorous growers are trained up wire pillars to the height of 12 feet; the flowers, drooping with their own weight, are displayed to great advantage. Their elegant and shining foliage is kept on during the greater part of winter, and nothing could be more appropriate for the position-nothing more beautiful.

1. Abbé Bisardon ; flowers rose, large and semi-double.
2. Abricoté; flowers apricot colour, their margin flesh, large and double; (Fanny Dupuis) form, cupped. Growth, vigorous. A beautiful Rose.
3. Adam; flowers rich rosy salmon, very large and full; form, globular. Growth, vigorous. A superb Rose, and very sweet.
4. Amélie d’Abrancourt ; flowers creamy white; form, globular.

Anteros; see Group XXXIII. Chinese.
5. Antonette Bouvage; flowers whitish flesh, large and full.
6. Archduchess Thérèse; flowers white, their centre lemon, large and full; form, cupped.
7. Arago; flowers rosy red, very large.
8. Atabalipa; flowers light rose, large.

Archinto; see Belle Archinto.
9. Aurora; flowers cream colour, their centre yellowish, large and very double; form, expanded. Growth, vigorous. There is a plant of this variety growing on the wall of the house of the Lady Elizabeth Palk, at Enfield, extending 12 feet high and 8 feet wide. It flowers beautifully.
10. Barbot; flowers cream, suffused with rose and salmon, large and full; form, globular. A good Forcing Rose, but uncertain out of doors.
11. Belle Archinto; flowers blush, their centre flesh, sometimes tinged with rose, of medium size, full; form, cupped.
12. Belle Allemande; flowers delicate pink, often tinged with fawn, variable, very large and double; form, expanded. A free bloomer, and very swcet.
13. Helle Marguerite; flowers rose, shaded with crimson, large and very double; form, expanded. Growth, robust.
14. Belle Traversii ; flowers cream colour, of medium size, full.
15. Belphégor; flowers deep rose.
16. Bocage; flowers yellowish white, large and double.
17. Boisdron ; flowers white, tinged with rose, large and double.
18. Bougère; flowers deep salmon colour, very large and full; form, cupped. Growth, vigorous. A superb Pot or Forcing Rose, with thick petals.
19. Bourbon; flowers white. Worthless.
20. Boutrand ; flowers clear rose, large and full.
21. $\dagger$ Bride of Abydos; flowers white, delicately tinged with pink, very large and double; form, expanded. Blooms very freely.
22. †Buret; flowers crimson, tinged with light purple, of medium size, full; form, globular. A free bloomer. A good and distinct Rose, of vigorous growth.
23. Calliope; flowers yellowish white.
24. +Caroline; flowers blush, suffused with deep pink, large and full; form, cupped. Grows and flowers freely.
25. Charles Reybaud; flowers pink, large and double; form, expanded.
26. Cels; flowers pink. Worthless.
27. Chevalier d'Amour; flowers blush, their centre yellowish.
28. Chrysocome; flowers rose, their centre yellow, large and full; form, cupped.
Clara Splfain ; see Group XXXIII. Chinese.
29. Clarisse; flowers pinkish white, changing to creamy white, of medium size, full. Growth, vigorous.
30. Cleopatra; flowers yellow, large and full; form, cupped.
$30 a$. †Comte de $\mathrm{P}_{\text {aris }}$; flowers flesh colour, shaded with rose, very large and full; form, cupped. A noble Rose. Raised at the Jardin du Luxembourg.
31. Comte d'Osmond; flowers blush, sometimes cream, tinged with pink, large and very double; form, cupped. Very sweet.
32. +Corinna; flowers delicate flesh, wax-like, their centre sometimes fawn, of medium size, double; form, expanded.
33. Délice de Plantier; flowers salmon and rose, variable, large and full; form, cupped. Growth, vigorous. Very sweet.
34. Delphine (Gaudôt); flowers pure white; form, cupped.
35. De Valmonge; flowers delicate pink; form, cupped.
36. Devoniensis; flowers creamy white, their centre sometimes buff, sometimes yellowish, very large and full ; form, cupped. A splendid Rose, of robust growth.
37. Diana Vernon ; flowers lemon, large; form, globular.
38. †Drémont; flowers pale flesh, their centre inclining to fawn, of medium size, very double ; form, cupped.
39. Duchesse de Mecklenburgh ; flower's straw colour, large; form, cupped. Uncertain.
40. Elisa Merceur; flowers dark red; form, cupped.
41. Elisa Sauvage; flowers pale yellow, their centre sometimes inclining to buff, sometimes to "orange, large and full; form, globular. One of the most beautiful, but of a rather delicate habit.
42. Eugénie Desqaches; flowers rose, large and full; form, cupped. Growth, vigorous.
Eugénie Jovain ; see Madame Roussell.
Fanny Dupuis; see Abricoté.
43. Fakir ; flowers deep pink, large.
44. Favart ; flowers light rosy lilac, large.
45. Fleur de Cyprés; flowers flesh colour, large and full.
46. Fond Jaune de Paillet; flowers white, their centre lemon, large and very double; form, cupped.
47. + Fragoletta; flowers rosy blush to crimson, variable, large and double; form, cupped. Foliage, fine.
48. $\dagger$ Fragrans; flowers rosy to bright crimson; form, cupped.
49. Gama ; flowers flesh colour, large and full.
50. Geraldine ; flowers pale blush veined.
51. Gigantesque; flowers flesh colour, shaded with rose, very large and full. Growth, vigorous. Coarse.
Gloire de Hardy; see Hardy.
52. Gonda; flowers white, their centre bronze; form, globular.
53. †Goubault; flowers bright rose, very large and double; form expanded. The young buds of this Rose are of the most elegant form, shewing of a rich deep crimson as the sepals part. Very sweet.
54. Hamon ; flowers flesh colour to crimson, variable, large and very double; form, cupped. Very sweet. Very delicate.
55. $\dagger$ Hardy; flowers pink to brilliant rosy crimson, variable, of medium size, very double; form, cupped. A free bloomer, and very sweet.
56. Hétéroclite; flowers salmon rose, large.
57. Hortensia ; flowers deep blush.
58. Hyménée; flowers white, their centre yellowish buff, large and very double.
59. Hippolyte; flowers salmon colour, large.
60. Irma; flowers rose, large and double; form, cupped. Raised at Angers. Introduced in 1845.
Icteros; see Group XXXIII. Chinese.
Jaune; see Yellow.
61. Jaune Abricoté; flowers apricot yellow, large and very double; form, bb2
globular. The wood and young leaves of this Rose are chocolate colour.
Jeannie Deans ; see Group XXXIII. Chinese, "Don Carlos."
62. Josephine Malton; flowers rich cream colour, their centre often inclining to buff, the tops of the petals sometimes tinged with lake, large and very double ; form, cupped, exquisite. A beautiful Rose. Very susceptible of frost.
63. Jules Desmont ; flowers clear rose, changing to white, of medium size, full; form, globular.
64. Jules Félize; flowers clear rose, large and double.
65. Julie Mansais ; flowers straw colour, their margin almost white, large and full; form, cupped. Very sweet. The buds long, and very beautiful. Rather delicate.
66. 十Lady Granville; flowers blush, tinged with flesh, of medium size, very double; form, cupped. Growth, vigorous. A free bloomer.
Lady Warrender; see Group XXXIII. Chinese, "Clara Sylvain."
67. La Renommée; flowers white, their centre pale lemon, sometimes mingled with flesh colour, large and full; form, cupped. A lovely flower, of exquisite form.
68. La Sylphide; flowers blush, very large and double.
69. Laura; flowers white, large and double; form, cupped.
70. Latinie Darieûl; flowers blush. Worthless.

Le Pactole; see Group XXXVIII. Noisette.
71. Léonie Charmante; flowers yellowish white.
72. Leon Felize Bigot; flowers salmon-rose; form, cupped.
73. Leveson Gower; flowers pale yellow, distinct.
74. Lutescens grandiflora; flowers straw colour, very large.
75. Lutescens mutabilis; flowers pale yellow.
76. †Lyonnais; flowers rosy pink, changing to flesh-colour, very large and double; form, cupped. Growth, vigorous. A noble Rose, but rather loose.
77. $+\mathrm{M}_{\text {acarthay }}$; flowers rosy pink, large and semi-double.
78. Madame Bravy; flowers cream, large and full; form, cupped.
79. + Madame de St. Joseph; flowers pale pink, with deeper centre, sometimez dying off apricot colour, very large and double; form, expanded. Growth, vigorous.
80. Madame Droulin; flowers crimson, large and double; form, cupped.
81. Madame Galez; flowers creamy yellow.
82. Madame Goubault; flowers rosy blush, large and double.
83. Madame Guerin ; flowers white, tinged with lemon, large and very double; form, cupped.
84. Madame Jacqueminot; flowers white, their centre yellow, large and full; form, cupped.

Madame Lacharme; see Group XXXIII. Chinese " Virginale."
85. †Madame Roussell; flowers white, shaded and sometimes edged with rosy
(Eugénie Jovain) flesh, large and full; form, compact. A free grower and free bloomer, but not very sweet.
Madame Rofan ; see Group XXXIII. Chinese, "Madame Bureau."
86. Madame Villeran ; flowers creamy blush, their centre red.
87. Mademorselle de Salvandy; closely resembles Safrano.
88. Malmort ; flowers clear rose, large and very double.
89. †Mansais; flowers rose, shaded with buff, very large and full; form, cupped. Very sweet.
90. †Maréchal Bugeaud; flowers bright rose, large and very double; form, cupped. Very good.
91. Maréchal Vallée; flowers clear rose, their margin paler, large and full.
92. Marie de Medicis; flowers flesh colour, tinged with rose and carmine, large and full; form, globular. Growth, robust. Sometimes splendid, but does not always open well.
93. Marquise d'Evry; flowers clear rose, large and double.
94. Melville ; flowers rose shaded, large and double.
95. Merlette (Laboûlais); flowers buff, often shaded with brown and crimson, large and full; form, compact.
96. $\dagger$ Mirabile ; flowers apricot yellow, edged and shaded with rose, variable, of medium size, full; form, cupped. A very pretty Rose when in true character.
97. Mimi ; flowers cream colour.
98. Miranda ; flowers yellowish white, large and very double.
99. Mondor; flowers cream to fawn, sometimes beautifully tinged with lake, large and very double; form, cupped.
100. †Moiret; flowers fawn, sometimes yellowish, exquisitely tinted with rose, variable, very large and full; form, cupped, fine. Growth vigorous. A superb Rose, and very sweet.
Narcisse ; see Group XXXVIII. Noisette, "Le Pactole."
101. New Crimson; flowers crimson, not very sweet.
102. Nid d'Amour; flowers blush, their centre rose.
103. †Nina; flowers white, delicately tinted with pink, large and very double; form, globular. A free grower, and blooms freely.
104. $\dagger$ Niphetos; flowers white, their centre pale lemon, magnolia-like, very large and full; form, globular. A distinct and beautiful Rose, of vigorous growth.
105. $\dagger$ Nisida ; flowers rose and fawn, variously shaded, of medium size, very double ; form, cupped. Habit and foliage fine; flowers deliciously sweet.
106. Odorata; flowers blush, large and double, very sweet.
(Div. II.) bb3
107. TOriginal; flowers creamy white, their centre salmon buff, large and full; form, expanded. Growth, vigorous.
Pactolus ; see Group XXXVIII. Noisette, "Le Pactole."
108. †Palline Plantier; flowers white, tinged with lemon, of medium size, full; form, globular.
109. Pellonia; flowers pale yellow, their centre flesh, large and very double; form, globular. Very sweet.
110. Perfection ; flowers apricot, their edges buff, of medium size, double; form, cupped. Very sweet.
111. Pharoon ; flowers rosy carmine.
112. Prince Esteriazy ; flowers flesh colour, their centre rose, very large and very double; form, globular. Deliciously sweet.
113. Princesse Adelaide; flowers straw colour, their margin of a paler hue, large and full; form, cupped. Very sweet, and truly beautiful.
114. † Princesse Hélène; flowers white, their centre yellowisli, very large and full; form, cupped. Growth, robust. A fine Rose for the conservatory.
115. Princesse Manie; flowers rosy pink, large and full; form, globular. Uncertain out of doors, but forces well.
116. Queen Victoria; flowers pale yellow, large and full; form, globular. Closely resembles Princesse Adelaide.
117. Reine Cythere; flowers light rose.
118. Reine de Bassaro; flowers rose, their centre buff, very large and double; form, cupped. Very sweet.
119. Reine des Belges; flowers creamy white, large and full; form, globular. Seldom opens well out of doors.
120. Rêve du Bonheur; flowers yellowish, shaded with rose, of medium size, very double.
121. Robert Bruce; flowers white, with buff centre, large.
122. Romain ; flowers yellowish white, shaded with rose.
123. †Rose du Luxembourg; flowers rosy pink, large and very double; form, cupped.
$124 \dagger_{\text {Safrano }}$; flowers saffron to apricot in the bud, changing to pale buff; large and very double; form, cupped. A pretty variety, worthy of place in every collection. See Plate XIII.
125. Sémélé; flowers pale flesh, their centre yellowish, of medium size.
126. Siléne; flowers rose, changing to crimson, variable, very large and full; form, cupped. Growth, robust. Very sweet.
127. Sir W $\mathrm{W}_{\text {lter }}$ Scott ; flowers bright red, large and double.
128. Sir Wrlliam $W_{\text {allace; }}$ flowers bright rose, large and double; form, cupped.
129. Smitri's Yellow; flowers pale straw colour, large and full; form,

globular. A fine forcing Rose, but seldom opens well out of doors.
130. Société d'Agriculture de la Marne; flowers dark velvety crimson, of medium size, full. Uncertain.
131. Solitaire; flowers rose. Worthless.
132. Souvenir du $30 \mathrm{Mai}_{\text {; }}$; flowers rose and yellow, their centre copper colour, large and full; form, cupped.
133. Souvenir d'un Ami; flowers salmon and rose, shaded, large and full; form, cupped. Very fine.
134. Strombio ; flowers creamy white, their centre apricot yellow, large and very double; form, cupped.
135. Surabondante; flowers fawn, tinged with rose; form, cupped.
136. $\dagger$ Taglioni ; flowers creamy white, their centre tinted with flesh and lemon, large and full; form cupped. A free grower, flowering abundantly. Very beautiful in bud.
137. Themistocles; flowers delicate flesh, glossy, large and full; form, cupped. A peculiar Rose, quite hollow in the centre.
138. †Triomphe d'Orleans; flowers white, large and full; form, globular.
139. Triomphe de la Guillotièe; flowers yellowish white, large and full; form, cupped.
140. Triomphe du Luxembourg; flowers flesh colour, tinged with fawn and rose, very large and full; form, globular. Growth, vigorous. A beautiful Rose, and very sweet. Raised at the Jardin du Luxembourg.
141. Turgot; flowers reddish crimson, shaded, large and full. One of the darkest. Raised at Angers. Introduced in 1846.
142. Valentine; flowers pale pink, their centre deep pink, of medium size, very double; form, cupped.
143. Venusta; flowers pale lemon.
144. Vicomtesse de Cazes; flowers bright orange yellow, often tinged with copper colour, large and very double; form, cupped. One of the most beautiful.
Victoria; see Queen Victoria.
Virginal; see Group XXXIII. Chinese.
145. Yellow ; flowers sulphur coloured, large and double; form, globular. The (Flavescens) petals of this Rose are very large, the buds long and beautiful (Jaune) in a half-expanded state.

## ROSA INDICA.

## Group XXXVI.-THE BOURBON ROSE.

The type of this group, which has furnished us with some of the most lovely gems of autumn, was discovered by M. Breon, in the Isle of Bourbon, in 1817. He noticed it growing among a lot of seedlings of a different cast, raised for forming a hedge. He took charge of and flowered it; and, in 1819, sent seeds to M. Jacques, gardener at the Chateau de Neuilly, near Paris. A little later it found its way to England. Its origin is unknown; but it is supposed to be a hybrid between the Chinese and Four-seasons. What a numerous progeny has it given birth to, and what a lovely assemblage they form, graduating from pure white to the darkest tints! The brilliancy and clearness of the colours, the large smooth petals of the flowers, their circular outline, and the beauty of the foliage, has rendered them especial favourites. The tardy growth of spring seldom produces them in full beauty; but the more rapid growth of summer provides us with an ample supply of perfect flowers during the autumn months.

There are certain kinds here partaking slightly of the Chinese; these are marked thus $\dagger$ : there are others, marked thus $\ddagger$, approaching to the Noisette: the flowers arguing in favour of the one group, and the foliage in favour of the other.

The Bourbon Roses have been recommended for planting against walls; but they are hardy, and thrive well under ordinary culture. Surely, then, this extra care is unnecessary: we would rather choose the Chinese and Tea-scented for that purpose, for they need some protection.

The kinds of vigorous growth form handsome umbrageous trees, with heads as large as Summer Roses; they also look chaste and elegant trained up pillars. The moderate growers are very pretty as Dwarf Standards: the Dwarf form striking and beautiful objects when grown on their own roots. A great many are excellent for Pot-culture, and are beautiful in the Forcing-house. All prefer and delight in a rich soil, requiring (with the exception of the vigorous kinds) close pruning.

1. Acidalia; flowers pure white, their centre blush, large and full; form, globular. Growth, vigorous. A beautiful Rose in fine weather. An excellent kind for forcing. Very sweet.
2. Adele Plantier; flowers rosy crimson, large and full.
3. A fleur de Nerium; flowers rosy carmine.
4. Alfred; flowers rosy red. Of little worth.
5. Amarantine; flowers fresh rosy pink, large and double; form, cupped. Growth, moderate. The colour of this Rose is beautiful when the flowers are newly expanded. A good seed-bearer.
6. $\ddagger$ Amenaide; flowers lilac rose, produced in clusters, large and full; form, cupped. Growth, robust.
7. Angelina Bucelle; flowers rosy carmine, of medium size, double; form, cupped. Growth, moderate.
8. Anne Beluze; flowers pink when first opening, changing to flesh colour, of (Madame Beluze) medium size, full; form, compact. Growth, moderate. A very pretty Rose. Raised by M. Beluze of Lyons.
9. A pétales crénelés; flowers rose colour, curious.
10. Arabella; flowers rosy lilac, of medium size, full.
11. †Armosa; flowers deep pink, of medium size, full. Growth, moderate. A most abundant bloomer, partaking somewhat of the Chinese. A good variety for planting in masses; good also for a Standard or Pot-Rose.
12. Astérodie; flowers French white, tinted with pink, of medium size, very double; form, cupped. A pretty Rose, of moderate growth.
13. Augustine Lelieur; flowers rich even rose, very large and double; form, cupped. Growth, dwarf. An abundant bloomer, and very showy. A good seed-bearer.
Augustine Margat; see Theresia Margat.
14. Auguste de Challonges; flowers lilac blush.
15. Baucis ; flowers purplish red, of medium size, full.
16. Beauté de Versailles ; flowers rosy crimson, large and full; form, cupped.
17. Beluze; flowers cherry rose, rarely open well.
18. Belzunce; flowers fresh rosy pink, large and very double; form, compact. Growth, vigorous.
19. Bizarine ; flowers bright red, full.

Bossuet ; see Group XXIX. Rose de Rosomène.
20. Bouquet de Flore; flowers light glossy carmine, very large and double; form, cupped, exquisite. Growth, vigorous. Foliage and petals particularly elegant. Flowers, sweet. Forms a fine Standard or Pillar; good also for Pot-culture. A good seed-bearer.
21. Cardinal Fesch ; flowers cherry crimson, changing to purple, of medium size, very double; form, compact. Growth, vigorous.
22. Carné de Montmorency; flowers salmon blush.
23. Celimene; flowers silvery blush, their centre pink, very large and double; form, cupped. Growth, moderate. A good seed-bearer.
24. Cérès; flowers pale glossy rose, very large and very double; form, compact. Growth, moderate; habit, fine. A superb Rose, with very thick petals; good for Pot-culture. A good seed-bearer. Introduced in 1841.
25. Cezarine Souchet ; flowers blush, tinted with rose, large and very double; form, compact. Growth, moderate. A fine Rose.
26. Charlemagne; flowers clear blush, changing to pink, large and very double; form, cupped. Growth, moderate. First-rate. Raised by M. Dorisy of Beaume. Introduced in 1846.
27. Charles Desprez; flowers rose colour. Worthless.
28. Charles Martel; flowers purple, shaded with crimson, produced in corymbs, of medium size, full.
29. Charles Souchet; flowers dark crimson, sometimes finely shaded with purple, of medium size, full; form, compact, fine. Growth, dwarf. Uncertain, but occasionally very fine.
30. Chatenay; flowers lilac flesh, large and full; form, cupped. Growth, vigorous. The flowers are sweet, and the colour surpassingly delicate. Clementine Duval; see Group XXVIII. Bourbon Perpetual.
31. $\ddagger$ Comice de Seine et Marne; flowers crimson scarlet when first opening, changing to rosy purple, produced in clusters of medium size, very double ; form, cupped. Growth, moderate. One of the most beautiful of the group, especially when grown as a Standard. A good seed-bearer. Introduced in 1842.
32. Comte de Chambord; flowers crimson-purple, produced in large trusses.
33. Comte de Colbert; flowers rose colour, large and full; form, globular.
34. Comte de Nanteuil; flowers deep crimson, shaded.
35. + Comte de Rambuteau ; flowers dark rose, tinted with lilac, large and full; form, compact. Growth, dwarf. A good seed-bearer.
36. Сomte d'Eu; see Group XXIX. Rose de Rosomène.
37. Comtesse de Rességuier; flowers silvery blush; form, cupped.
38. Coquette de Melun ; flowers dark crimson.
39. Coupe de Cynthie; flowers bright rose, of medium size, very double.
40. Crimson Globe; flowers purplish crimson, of medium size, full; form, (Dr. Roques) globular. Growth, moderate. A pretty Rose in fine weather.
Crimson Madame Desprez; see Splendens.
41. D'Artagnan ; flowers flesh colour, of medium size, full. Raised at Angers. Introduced in 1847.
42. Délice de la Guillotiére; flowers deep pink.
43. Delille; flowers rosy lilac, large and very double ; form, compact. Growth, moderate. Uncertain.
44. De Lamartine; flowers red, changing to violet, of medium size, full.
45. De Tourville; flowers deep purple, of medium size, full.
46. Descemet ; flowers flesh colour, of medium size, full.
47. $\ddagger$ Desgaches; flowers delicate pink, produced in clusters, of medium size, (Gantin) full; form, cupped, fine. Growth, robust.
48. Deuil du Duc d'Orléans; flowers clouded purple, large and very double; form, expanded. Growth, vigorous.
49. Diaphane; flowers bright rose.
50. Docteur Blandin ; flowers rosy lilac, produced in clusters, small and very double; form, globular.
51. Docteur Chaillot; flowers pale carmine, large.
52. $\ddagger$ Docteur Hardouin ; flowers delicate peach, distinct and beautiful, of medium size, full; form, cupped. Growth, moderate. Introduced in 1846.
Docteur Roques; see Crimson Globe.
Don Alvar; see Group XXVIII. Bourbon Perpetual.
Dubourg; see Group XXVIII. Bourbon Perpetual.
53. Duc d'Aumale; flowers rose, tinged with crimson, rarely open well.
54. Duc d'Estrée; flowers purplish red, of medium size.

55 . $\ddagger$ Duc de Broglie; flowers white, of medium size, full; form, cupped.
56. Duc de Chartres; flowers brilliant rosy crimson, a little purplish towards the circumference, very large and full; form, expanded. Growth, robust. Not very constant, but sometimes splendid, especially as a Standard. A good seed-bearer.
57. Duc de Grammont; flowers purplish rose.

57a. Duchèsne; flowers crimson.
58. Duchesse de Normandie; flowers purplish rose, of medium size, full; form, globular. Raised at Lisieux. Introduced in 1846.
59. Duchesse de Thuringe; flowers white, delicately tinged with lilac, produced in corymbs, of medium size, very double. Raised by M. Guillot of Lyons. Introduced in 1847.
60. Dumont du Courset; flowers dark velvety crimson, sometimes beautifully shaded with light purple and tipped with blackish crimson, of medium size, full; form, compact. A free bloomer, of dwarf growth.
61. Dupetit-Thouars; flowers brilliant crimson, sometimes a little purplish, large and full; form, compact. Growth, vigorous. One of the brightest and best. Raised at Gentilly. Introduced in 1844.
62. Earl Grey ; flowers lilac rose, rarely expand well.
63. Edouard Desfossés; flowers fresh pink, shaded with pale pink, very large and full; form, cupped, fine. Growth, vigorous. Sometimes the flower-buds do not expand : otherwise first-rate.
64. Elvire ; flowers delicate rose, of medium size, very double.
65. †Emile Courtier; flowers rose, large and full; form, compact. Growth, moderate. A free flowerer, of fine habit, often splendid in the autumn. Excellent for a Standard. A good seed-bearer.
66. Emilie Varangot; flowers rose colour, large.

Enfant d'Ajaccio; see Group XXIX. Rose de Rosomène.
67 . $\ddagger$ Etoile du Berger; flowers blush, with rosy centre, small and very double; form, cupped. A pretty little Rose, of moderate growth, the petals very regularly disposed.
68. Eugénie Bréon; flowers salmon flesh, large and full. Raised by M. Belet. Introduced in 1847.
69. Eugénie Guinoisseau ; flowers rosy carmine, of medium size, very double; form, cupped.
70. Euphémie; flowers delicate rose, of medium size, full.
71. Faustine; flowers delicate blush, of medium size, very double; form, cupped. Growth, dwarf.
72. Fédora; flowers purple, of medium size, full.

Gantin ; see Desgaches.
73. Géenéral Hoche ; flowers pale, sometimes vivid rose, of medium size, very double; form, cupped. Growth, small.
74. Général Taylor ; flowers rose, tinged with salmon colour.
75. †Georges Cuvier; flowers rosy cherry, beautifully tinted with light purple, large and full; form, compact. Growth, moderate. A splendid Autumn Rose. Habit and foliage fine. Raiscd in the vicinity of Paris. Introduced in 1843.
76. Gloire de la Guiliotièe; flowers light rose, large and full; form, cupped.
77. Gloire d'Alger; flowers crimson. Worthless.
78. Gloire de Guerin ; see Group XXVIII. Bourbon Perpetual.
79. Gloire des Broteaux ; closely resembles Edouard Defosses.
80. Gloire de Paris; flowers crimson, shaded with light purple, very large and very double; form, expanded. Growth, moderate. A bold and showy Rose, but rather coarse.
Gloire de Rosomène; see Group XXIX. Rose de Rosomène.
Grand Capitaine ; see Group XXIX. Rose de Rosomène.
81. Guillaume le Conquérant; flowers bright rose, very large and full. Hennequin; see Splendens.
82. $\ddagger$ Henri ; flowers clear flesh colour, of medium size, full.
83. Henry Clay ; flowers deep rose, slightly tinged with lilac, large and full.
84. Henri Lecoo ; flowers clear carmine, large and full; form, cupped.
85. Hersilie; flowers bright rose.
86. Ida; flowers pale pink, of medium size, very double. Growth, dwarf.
87. Ida Percot; flowers deep pink, with paler margin, of medium size, very double; form, cupped. Growth, moderate. Very sweet.
88. $\ddagger$ Imperatrice Josephine; flowers pink, their margin blush, produced in clusters, of medium size, very double; form, globular. Growth, robust. A pretty Rose.
89. Irma ; flowers flesh colour, of medium size, full ; form, cupped.
90. Jacquard ; flowers rose, of medium size, very double; form, compact.
91. James Watt ; flowers pink. Worthless.
92. Julie de Fontenelle; flowers rosy crimson, shaded with purple, of medium size, very double; form, cupped. Growth, moderate. A very pret-tily-formed flower. Raised at Gentilly. Introduced in 1845.
93. $\ddagger$ Julie Deloynes; flowers flesh colour, changing to French white, pro-
(White Bourbon) duced in clusters; sweet, small, and very double; form, cupped. Growth, moderate.
94. Jupiter; flowers deep lake, large; form, cupped.
95. Justine; flowers clear rose, changing to rose pink ; of medium size, very double; form, cupped. Growth, moderate. A free bloomer, forming a handsome tree; the colour of the flowers exquisite when newly expanded.
Labédoyère; see Group XXIX. Rose de Rosomène.
96. $\ddagger \mathrm{L}_{\mathrm{a}} \mathrm{F}_{\text {avorite }}$; flowers deep rose, of medium size, full. Raised at Angers. Introduced in 1846.
97. La Gracieuse; flowers lively red, large and full; form, compact. A beautiful Autumnal Rose, of dwarf growth.
98. Lady Canning; flowers rose, margined with lilac, large and full ; form, globular. Growth, robust. A splendid Rose, with fine dark foliage. A little uncertain.
99. Lady Montague; flowers bright rose, their centre rosy blush.
100. Latifolia; flowers fresh pink, large and very double; form, cupped. Growth, robust. A pretty coloured Rose, with fine broad foliage.
101. Lavinie d’Ost; flowers flesh colour, their centre pink, large and very double ; form, expanded. Growth, vigorous. A good Pillar Rose, producing its flowers in clusters.
102. Le Camée; flowers blush, their centre pink, of medium size, very double; form, cupped. Growth, moderate. A very pretty Rose, producing a fine effect as a Standard. Raised by M. Beluze of Lyons.
103. Le Florifère; flowers rosy lilac, margined with crimson, very large and full; form, cupped. Growth, robust. Forms a large-headed and handsome tree, with fine foliage. Introduced in 1846.
104. Le Grenadier; flowers clear rosy purple, sometimes opening crimsonscarlet, of medium size, double; form, expanded. Growth, robust. The colours of this kind are extremely beautiful. Raised in the vicinity of Paris. Introduced in 1843.
105. Le Maréchal du Palais; flowers delicate rosy blush, large; form, cupped.
106. Lester; flowers cherry red, large and double.
107. Leveson Gower; flowers rose, shaded with salmon, very large and full; form, cupped. Growth, robust. Partakes of the nature of the Teascented. Raised by M. Beluze of Lyons. Introduced in 1846.
108. Lichas; flowers light cherry, with a slight purplish tint, very large and full; form, cupped. Growth, moderate. An excellent kind, with handsome foliage.
109. Lilacea grandiflora; flowers rosy lilac, very large and full.
(Div.II.) ild
110. Madame Angelina; flowers rich cream, their centre salmon and fawn, of medium size, very double; form, cupped. Growth, moderate. A beautiful and distinct Rose, with fine stiff petals.
111. Madame Aude; flowers rosy lilac, large and full; form, globular. Growth, vigorous.
Madame Aubis; see Madame Hobetz. Madame Beluze; see Anne Beluze.
112. $\ddagger$ Madame Berger; flowers rosy crimson, small and double.
113. Madame Bigotini ; flowers lilac rose, large and full; form, globular.
114. Madame Desgaches; flowers white, small and full.
115. Madame Desprez; flowers rose and lilac shaded, produced in large clusters, large and full ; form, cupped. Growth, vigorous. A fine Standard or Pillar Rose. Raised by M. Desprez of Yebles.
$115 a$. Madame Hobetz; flowers salmon rose; form, cupped.
(Madame Aubis).
116. Madame Lacharme; flowers white, tinted with flesh, large and very double; form, cupped. Growth, robust. Forms a fine umbrageous Standard or Pillar Rose.
Madame Margat ; see Theresia Margat.
117. Madame Nerard; flowers delicate pink, shaded with blush, large and very double, sweet; form, cupped, fine. A beautiful Rose, of moderate growth. A good seed-bearer.
118. Madame Pepin ; flowers pink, changing to blush delicately tinted with lake, large and double; form, cupped. Growth, moderate.
119. Madame Socchet ; flowers blush, edged with lake, beautiful when in true character, large and very double; form, compact. Growth, moderate. Raised in the vicinity of Paris. Introduced in 1843.
120. $+\mathrm{M}_{\text {adame }} \mathrm{Tripet}$; flowers dark rose, their circumference whitish, large and very double; form, cupped, fine. An excellent variety, of moderate growth.
121. Madame Varengot ; closely resembles, if not identical with, Lady Canning.
122. Mademoiselle Cherie; flowers bright pink, double.
123. Mademoiselle Rachel; flowers blush, tinged with pink, of medium size, very double; form, cupped. Growth, moderate.
124. Malvina; flowers rosy pink, very large and double; form, cupped. Growth, moderate. A fine Rose late in the autumn, of a beautiful colour.
125. Manteau de Jeanne d'Arc; flowers clear flesh colour, changing to white, of medium size, very double; form, cupped, camellia-like. A distinct and beautiful Rose, of dwarf growth. Raised by M. Beluze of Lyons.
Maréchal du Palais; see Le Maréchal du Palais.

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126. Maréchal Villars; flowers purplish crimson, rarely open well.
127. Margat Jeune; flowers very rich crimson, the edges of the centre petals ofttimes a little whitish, large and full; form, cupped. A fine Rose, of moderate growth. See Plate XIV.
128. Marguerite Hédouin; flowers delicate rose, the petals tapering to a point, of medium size, full. Raised at Angers. Introduced in 1847.
129. Marianne; flowers rosy pink, produced in clusters, large and very double; form, cupped. Growth, robust; foliage, fine. A good seed-bearer.
130. Marie Duleau; flowers flesh colour, of medium size, full.
131. $\ddagger \mathrm{M}_{\text {arquise }} \mathrm{n}$ Ivry; flowers bright rosy pink, changing to lilac, produced in clusters, very large and full ; form, cupped. Growth, vigorous. A showy Rose: forms a good Pillar Rose.
132. Marquise de Moyria; flowers bright carmine, large and full.
133. Marquise d'Osseray; flowers lake, shaded with violet, of medium size, full.
134. Menoux ; flowers carmine, large and full ; form, cupped. Superb.
135. Meul ; flowers bright rose, of medium size, full.

Mieris ; see Group XXIX. Gloire de Rosomène.
136. Millésii ; flowers purplish pink.
137. Miroir de Perfection; flowers rose, tinged with violet, of medium size, full.
138. $\ddagger$ Miss Fanny ; flowers flesh colour, their margin almost white, produced in clusters, of medium size, full ; form, cupped. Growth, robust.
139. +Mrs. Bosanquet ; flowers white, their centre delicate flesh, large and full; form, cupped. Growth, vigorous. A beautiful Rose, sweet, and an abundant bloomer. Good either for Bedding, Pot-culture, or a Standard.
140. Nadiska ; flowers rose, of medium size, full; form, compact. Raised at Angers. Introduced in 1847.
141. Nerine; flowers rose pink, of medium size, very double; form, cupped, fine. A pretty Rose, of dwarf growth.
142. Nicette; flowers pale rose, their centre deep rose, large and full. Raised at Angers. Introduced in 1847.
143. Nicolas Rollin ; flowers bright carmine, of medium size, full.
144. Ninon de l'Enclos; flowers pink to crimson, variable. Seldom open well.
145. Eillet; flowers white and rose, of medium size, double.
146. Oscar Leclerc; flowers brilliant crimson, shaded with dark violet, large and full; form, cupped. Growth, robust. A fine Rose. Introduced in 1846.
147. Paul Joseph; flowers rich purplish crimson, often shaded with fiery crimson, magnificent, large, and full; form, compact. Growth, moderate. Thrives best as a Dwarf, or Dwarf-standard. Introduced in 1842.
d d 2
148. Phillipart; resembles, if not identical with, Latifolia.
149. Phenix ; flowers bright purplish crimson, large and very double; form, cupped; very sweet. Growth, moderate.
150. Pierre de $\mathrm{S}_{\mathrm{t}}$. Cyr; flowers pale glossy pink, very large and very double; form, cupped, fine. Growth, vigorous. A distinct and beautiful variety, blooming and seeding freely. Grown as a Weeping Rose, it forms a beautiful umbrageous tree, laden with its elegantly-cupped flowers throughout the summer and autumn.
151. Pluto ; flowers dark crimson; form, expanded.
152. Pompon cramoisi ; flowers bright crimson, small. Introduced in 1847.
153. $\ddagger$ Pourpre de Tyre; flowers dark crimson, shaded with purple, variable, large and full; form, cupped. Growth, robust.
154. Pourpre (Fafait); flowers rich crimson purple, large and full; form, compact. Growth, vigorous. Sometimes fine, but often mediocre.
155. Prémices des Charpennes; flowers lilac rose, their margin almost white, of medium size, very double; form, globular. Growth, vigorous. The flowers are produced in large clusters; the buds often turn brown and shabby. Quite second-rate.
156. Prince Albert; flowers pale flesh. Worthless.
157. Princesse Clementine; flowers purple or purplish crimson, their centre often light vivid crimson, of medium size, full; form, cupped. Growth, moderate.
158. Princesse de Joinville; flowers delicate blush, double; form, compact.
159. Princesse de Modena; flowers flesh colour, tinted with pink, of medium size, very double; form, cupped, fine. A very pretty and distinct kind ; of dwarf growth.
160. Prince de Croi ; flowers deep rose colour.
161. Proserpine; flowers crimson to purplish crimson, variable, sometimes velvety, beautiful, of medium size, full; form, compact, fine. A free bloomer and good seed-bearer, of dwarf growth. Introduced in 1841. Psyche; see Group XXVIII. Bourbon Perpetual.
162. Queen ; flowers delicate salmon flesh, often tinged with buff, large and very double; form, cupped, fine. Growth, moderate. An abundant bloomer, sweet, and of fine habit; excellent for bedding.
163. Raymond; flowers bright crimson, of medium size, full; form, expanded. Growth, vigorous.
164. Reine du Congrès; flowers flesh colour, shaded with pink, of medium size, full ; form, compact. Growth, moderate. A good Rose.
165. Reine des Vierges; flowers blush, their centre flesh, large and full. Growth, robust. A good Forcing Rose, whose flowers do not always open out of doors. Raised by M. Beluze of Lyons.


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166. Rhodanthe; flowers white, their centre rose, large and full; form, globular. Raised at Guillotière. Introduced in 1847.
167. Sepintarus; flowers pink, of medium size, full; form, cupped. Growth, moderate, often fine, but uncertain.
168. Sir Robert Peel; flowers purplish rose.
169. Souchet ; flowers bright rosy purple, sometimes brilliant crimson, glossy, very large and full; form, compact. Growth, moderate. A superb Rose, and swect. Raised by M. Souchet in the vicinity of Paris. Introduced in 1843.
Souvenir d'Anselmne; see Group XXIX. Rose de Rosomène.
170. Souvenir de Désiré; flowers deep violet carmine, of medium size, full. Growth, vigorous, resembling that of Madame Desprez. Raised by M. Lacharme. Introduced in 1847.
171. Souvenir de Dumont d'Urville; flowers bright rosy crimson, sometimes tinged with purple, of medium size, very double; form, cupped. Growth, dwarf. The petals of this flower are often regularly and handsomely disposed.
172. Souvenir de la Malmaison; flowers flesh colour, their margin almost white; very large and full; form, compact. Growth, vigorous. A magnificent Rose, with large thick petals. Forms a fine sort for a Standard or Pot-culture. Raised by M. Beluze of Lyons. Introduced in 1843. See Plate XV.
173. $\dagger$ Spectosa ; flowers pale rose, their margin inclining to blush, large and full ; form, cupped. Growth, moderate.
174. Splendens; flowers rosy lilac to rosy crimson, variable, large and full, (Hennequin) sweet; form, compact. Growth, moderate. A beauti-
(Crimson MIadame Desprez) ful kind, with fine foliage.
175. $\ddagger$ Sully ; flowers very dark crimson, of medium size, very double. Growth, moderate. A distinct and desirable variety, with large foliage. Raised by M. Vibert. Introduced in 1846.
176. Sydonie Dorisy ; flowers peach, slightly tinged with lilac, of medium size, full ; form, compact. Growth, moderate. Raised by M. Dorisy, of Beaune. Introduced in 1846.
177 Theresia Margat ; flowers fiesh rose-pink, their circumference paler, of (Augustine Margat) medium size, very double; form, cupped. Growth, moderate.
(Madame Margat) A good Rose, of fine habit, foliage very pretty; a good seedbearer.
177. Thimocles; flowers bright rose, tinged with lilac.
178. †Therésita; flowers lilac pink, their margin paler, of medium size, full; form, globular. Growth, moderate. An abundant bloomer, improving greatly under high cultivation. A good sort for a pot; sweet.
(Div. II.)
$d d 3$
179. Thisbé ; flowers purplish rose, of medium size, double; form, compact. Introduced in 1845.
180. Thomas Morus; flowers lilac pink, of medium size, full; form, globular.

Triomphe de la Dúchère; see Group XXXVIII. Noisette.
182. Triomphe de la Guillotiere; flowers rosy lilac, of medium size, full; form, cupped.
183. Triomphe de Plantier; flowers rosy lilac, their centre sometimes rosy crimson, large and very double; form, cupped. Growth, vigorous.
184. Vicomte de Cussy; flowers cherry colour, tinged with purple, large and very double; form, compact. Growth, moderate.
185. Victor Varengot; flowers pale blush.
186. Virgil ; flowers rose, large and full ; form, cupped. Growth, vigorous.
187. Vulcanie; flowers deep rosy red; form, cupped.

White; see Julie Deloynes.
188. Zulema ; flowers flesh-colour, shaded ; form, globular.

## ROSA MOSCHATA.

## Group XXXVII.-THE MUSK ROSE.

The Musk Rose is supposed to have been introduced to England about the year 1596, and, by reason of its long residence among us, has become widely spread throughout the country. The original Musk Rose is a rambling shrub, abounding in Madeira and the North of Africa, also in Persia: indeed, it is generally supposed that the attar of Roses is made from the species now under consideration. The flowers, which form in large clusters, seldom appear till late in summer: their peculiar musk-like scent is a point of distinction, although not so powerful as some authors would lead us to believe: it is one of the fine things of nature, which requires the existence of special circumstances-a still moist atmo-sphere-to be readily appreciable. These Roses are of rapid growth, best adapted for Climbers: they are not sufficiently hardy to bear exposure in bleak unsheltered situations. They require long-pruning.

1. Blush, or Fraser's ; flowers pale red, small and semi-double; form, cupped.
2. Double White; flowers yellowish white, of medium size, double; form, cupped.
3. Eliza Werry; flowers nankeen, changing to white.
4. Efonine; flowers pure white; form, cupped.
5. Fringed ; flowers white, the petals serrated; form, cupped.
6. New Double; flowers creamy white; form, compact.
(Ranunculus)
7. Nivea; flowers white, shaded with rose, large and single; form, cupped. Growth, robust.
8. Ophir; flowers yellowish white; form, cupped.
9. Princesse de Nassau ; flowers yellowish straw; form, cupped; very sweet. Ranunculus; see New Double.
10. Rivers; flowers pink, shaded with buff; form, cupped.
11. Rosine; flowers clear rose, of medium size, full.
12. Tea-scented; flowers white, large; form, cupped.

## ROSA MOSCHATA.

Group XXXVIII.-THE NOISETTE ROSE.
The original Noisette, due probably to the accidental fertilization of the Chinese with the Musk Rose, was obtained by M. Philippe Noisette, in North America, and sent to Paris in 1817. The peculiar features recommended to notice were, its hardy nature, free growth, and large clusters of flowers produced very late in the year, which were indeed recommendations of no common order. Its appearance was hailed with delight, and it soon spread throughout Europe. But we are losing the old style of Noisette, and multiplying kinds hybridized with the Tea-scented. This is a matter of regret; for however much we may extend the range, or improve the delicacy of the colours, by this process, we are rendering a hardy group of Roses tender, and blotting out the prettiest feature of the group-flowers produced in large and elegant trusses.

The kinds partaking of the nature of the Tea-scented require a wall, and the treatment advanced for Tea Roses: they are marked thus § that they may be distinguished from the others. Among the true Noisettes the kinds of vigorous growth form handsome, late-flowering Weeping or Pillar-Roses : the others thrive equally well either as Dwarfs or Standards. Rather less pruning is required here than is recommended for the Chinese and Tea-scented : a common soil suffices. I have seen these Roses blooming unchecked amid the early storms of winter.

1. Aimee Vibert; flowers pure white, produced in large clusters, of medium size, full; form, compact. Growth, moderate. Forms a noble Standard, the foliage of a dark green, and shining : good also for bedding. Raised by M. Vibert.
2. Aine; flowers rosy lilac, changing to blush lilac, small and very double;
(Belle Violet) form, cupped. Growth, moderate. An immense bloomer.
3. Alzonde; flowers pale blush.
4. Andreselle; flowers bright rosy lilac, changing duller, small and double; form, cupped. Growth, vigorous. A profuse bloomer, the wood chocolate colour.
5. Angelina ; flowers purplish crimson ; form, cupped. Growth, dwarf.
6. Belle Laure; flowers white, their centre flesh colour, large and full.
7. Bicolor; flowers blush, shaded with rose.
8. Bougainville; flowers peach lilac, of medium size, very double; form, cupped. Growth, vigorous. A profuse bloomer, with shining foliage.
9. Boulogne ; flowers dark purple, changing to purplish lilac, small and double ; form, cupped. Growth, moderate. A profuse bloomer, and distinct.
10. Bouquet tout fait; flowers creamy white, produced in large handsome clusters, of medium size, very double; form, expanded. Growth, vigorous. Very sweet.
11. Cadot ; flowers pink to rosy crimson, of medium size, double; form, cupped. Growth, vigorous.
12. Camellia rosea; flowers bright rosy pink, double ; form, cupped. Growth, (Camellia rouge) vigorous.
13. Castalie ; flowers creamy white, produced in large clusters, the young buds having a rosy appearance, of medium size, very double; form, cupped. Growth, moderate.
14. Cerise ; flowers purplish rose, large and double; form, cupped. Growth, (Mrayfower) (Rothanger) vigorous.
15. Cherance; flowers white, of medium size, very double; form, cupped. Growth, moderate.
16. Charles the Tenth; flowers purplish red. Quite second-rate.
17. Celoris; flowers blush, their centre rosy pink, large and full; form, cupped. Growth, moderate. Partakes intimately of the Chinese. Uncertain.
18. §Clara $W_{\text {endel }}$; flowers cream, their centre sometimes fawn colour, sometimes deep yellow, large and full ; form, cupped. Growth, vigorous. Very sweet. Fine in dry warm seasons, and when grown under glass.
19. Clarisse Harlowe; flowers flesh-colour, large and full; form, cupped. Growth, vigorous. Occasionally fine, but very uncertain.
Cleopatra; see Group XXXV. Tea-scented.
20. Cloth of Gold; flowers creamy white, their centre yellow, varies as to (Chromatella) colour and fulness, usually very large and very double; form, globular. Growth, vigorous. A beautiful Rose, and sweet, but a shy bloomer. The best mode of treatment is to plant it against a south or an east wall, pruning it very little: when thoroughly established it will flower. Raised from Noisette Lamarque. Introduced in 1843.
21. Comtesse d'Orloff; flowers rosy lilac. Growth, vigorous.
22. Comtesse de Tolosan; flowers white, their centre flesh, large and very double ; form, cupped. Growth, moderate. Very pretty.
23. Comtesse Odoisse; flowers pink, of medium size, double; form, cupped. Lively, showy, and distinct. Growth, vigorous.
24. Corymbosa; flowers milk-white, small, and full; form, expanded. A singular Rose, with dark and shining crumpled foliage.
25. D'Espalais; flowers rose. Growth, vigorous.
26. Désiré Roussell; flowers bright flesh, changing to white, the trusses bearing both colours at the same time, of medium size, full; form, cupped. Growth, moderate. A pretty and distinct Rose.
27. §Desprez à fleur jaune; flowers red, buff, flesh, and sulphur, variable, (Jaune Desprez) very large and full; form, cupped. Growth, vigorous, (New French Yellow) making shoots three or four feet long, the flowers forming in clusters at their points, the foliage large and fine. Very sweet. A most desirable kind for a wall.
28. Donna Maria ; flowers rose, small and full; form, cupped.
29. Du Luxembourg; flowers lilac rose, their centre deep red, large, and very double; form, cupped. Growth, vigorous.
Duc de Broglie; see Group XXXVI. The Bourbon Rose.
Eclair de Jupiter; see Group XXIX. Rose de Rosomène.
30. Elizabetii ; flowers white, very double; form, cupped.
31. Eugenie Dubourg ; flowers pale pink, changing to white, of medium size, full ; form, cupped. Growth, moderate.
32. §Euphrosyne; flowers pale rose, fawn, and yellow, variable, large and very double; form, cupped. Growth, moderate. A pretty Rose, with pale green shining foliage. Very sweet.
33. Fellenberg; flowers bright crimson, of medium size, double; form, cupped. Growth, robust. An abundant bloomer, with dark foliage, showy, but rather loose. Desirable for bedding: fine late in the year.
34. §Fleur du jeune age; flowers white, their centre straw, large and full;
(Lamarque a cceur rose) form, cupper. Growth, vigorous. Requires little pruning. Occasionally fine, but a shy bloomer.
35. Grandiflora; flowers blush, large and full; form, globular. Growth, vigorous.
36. Hardy ; flowers white, their centre rosy, large and very double; form, cupped. Growth, vigorous. Pretty and distinct.
Henri ; see Group XXXVI. Bourbon.
37. Héroine de Vaucluse; flowers clear rose, their centre copper-colour, small, and full.
38. Jeanne d'Arc ; flowers pure white; form, cupped. Growth, vigorous.
39. Julia ; flowers crimson, of medium size, double; form, cupped.
40. Julienne la Sourde; flowers bright pink; form, cupped. Growth, dwarf.
41. La Biche; flowers white, their centre flesh, very large and very double; form, cupped. Growth, vigorous. A fine Pillar-Rose.
42. La Nymphe; flowers lilac blush, their centre rosy pink, small, and very double; form, expanded. Growth, moderate.
43. §La Victorieuse; flowers flesh-colour, changing to white, large and very double; form, cupped. Growth, moderate. A fine Pot-Rose.
44. §lactans; flowers creamy white, beautiful in bud, large and double; form, cupped. Growth, dwarf.
45. §Lamarque; flowers white, their centre deep straw-colour, very large and full; form, cupped. Growth, vigorous. A splendid kind for a wall with a sunny aspect, producing its elegant flowers in large clusters.
46. Lamarque a cogur rose; see Fleur du jeune âge.
47. L'Angevine; flowers white, beautifully tinted with pink, very large and double; form, expanded. Growth, vigorous. A fine Climbing Rose.
48. §Le Pactole; flowers cream, their centre yellow, large and full; form, (Madame de Challonge) cupped. Growth, moderate. A beautiful Rose.
(Pactolus)
49. Lelieur; flowers crimson, small and double; form, cupped. Growth, dwarf.
50. Louise ; flowers crimson, large; form, compact.

Luxembourg; see Du Luxembourg.
Madame de Challonge; see Le Pactole.
51. Madame Jouvain ; flowers bright rose, their centre buff, very sweet; form, cupped. Growth, vigorous.
52. Madame Plantier; flowers lemon, their centre yellow.

Mayflower; see Cerise.
53. Minette; flowers light crimson, small and full; form, globular.
54. Miss Glegg; flowers white, their centre sometimes flesh-colour, produced in large clusters, small and full; form, cupped. Growth, dwarf. Much in the style of Aimée Vibert, but the flowers are smaller and more regularly formed. A pretty Rose. Raised by M. Vibert.
55. §Mrs. Siddons; flowers bright yellow; form, cupped. Growth, dwarf.
56. Nankin ; flowers nankeen in bud, opening flesh-colour, and dying off white, small and full; form, cupped. Growth, moderate. Distinct and sweet.
57. $\S \mathrm{N}_{\text {arcisse }}$; closely resembles, if not identical with, Le Pactole.

58 . §Ne plus ultra ; flowers creamy white, very sweet; form, cupped.
Némésis ; see Group XXXIV. Fairy.
New French Yellow; see Desprez à fleur jaune.
59. §Ophirie; flowers reddish copper, the outer petals rosy and fawn, of medium size, very double; form, cupped. Growth, vigorous. Distinct and sweet.
60. Odeur d'Anisette; flowers blush, their centre flesh, of medium size, very double; form, cupped. Growth, dwarf. A distinct Rose, with a peculiar odour and shining foliage.
Pactolus ; see Le Pactole.
61. Petir ; flowers pale rose, produced in large clusters; form, cupped.
62. §Рнацоé ; flowers cream, delicately tinted with carmine, large and full; form, compact. Growth, moderate.
Pourpre de Tyre; see Group XXXVI. Bourbon.
63. Prudence Reger; flowers pink, with fawn centre, of medium size, very double ; form, cupped. Growth, vigorous.
64. Pumila alba; flowers white, small and double; form, cupped. A free bloomer of small growth, good for bedding.
Rothanger; see Cerise.
65. $\S$ Similor ; flowers creamy buff, their centre rose and fawn, dying off white, tinged with pink, small and very double; form, cupped. Growth, dwarf.
66. Sir Walter Scott; flowers rosy lilac, large and double; form, cupped. Growth, vigorous.
Smith's Yellow; see Group XXXV. Tea-scented.
67. §Solfaterre; flowers creamy white, their centre bright sulphur, very large and full; form, cupped. Growth, vigorous. A fine Rose, with handsome foliage, and very sweet. Excellent for a wall. Raised from Noisette Lamarque. Introduced in 1843.
68. Thélaire; flowers white, of medium size, very double. An abundant bloomer. Raised at Angers. Introduced in 1846.
69. §Triomphe de Bolwyller; flowers cream, shaded; form, cupped.
70. Triomphe de la Duchere; flowers pale rose, produced in large clusters, of medium size, full; form, cupped. Raised by M. Beluze, of Lyons. Introduced in 1846.
Turgot; see Group XXXV. Tea-scented.
Victorieuse; see La Victorieuse.
71. §Vitrellina; flowers white, their centre flesh, yellow, and rosy, variable, of medium size, double; form, cupped. Growth, vigorous.
72. Wells' Pink; flowers bright pink. Growth, vigorous.

Yellow; see Group XXXV. Smith's Yellow.
73. Zictrude; flowers brilliant crimson, shaded with blackish purple, the colours brought out beautifully in sunny weather, of medium size, very double ; form, cupped. Growth, dwarf. Distinct.
74. Zobeide ; flowers brilliant rose; form, cupped.

End of Division II.

## A P P E N D I X.

## BOTANICAL NOTES ON THE ROSE.

[The writer of the following observations on the species of Roses is desirous of stating, at the outset, that, in dealing with a subject which the most distinguished botanists regard as beset with difficulties and doubts, he lays no claim to originality: in constructing this garland of Roses, he has brought to the task "nothing of his own but the string which binds them together."-M.]

Botanically considered, the family of Roses is as difficult as it is beautiful. In this view the Wild forms only are comprehended, the botanist having nothing to do with the almost numberless varicties originated by the florist. These Wild forms impersonate all that is elegant and beautiful. The writer is not indeed inclined to discuss the question, whether the Single Wild Roses, or the Double Garden Roses, are most deserving of notice. Whatever opinion may be formed on that point, it is believed that no one will deny even to the Wild Roses of the woods all that is here claimed for them.
Few persons perhaps, at the present day, would care to collect and cultivate the botanical species of Roses. It is not, in fact, with this in view, that the following brief descriptive notices are here offered. Some of those who are interested in Rose-culture may, however, desire to know somewhat of the extent of materials which the genus affords, especially in reference to the means of hybridizing with the view to bring out new characters differing from those which predominate in our present cultivated varieties. By those who are imbued with feelings such as these, especially if they are amateurs, the few particulars which follow, may be found useful. The writer, however, by no means assents to the broad conclusion, that the original species of Roses are all, or for the most part, unworthy a place in our gardens: many of them are very beautiful objects, and there is among them such a great diversity of elegance, as the cultivated varieties, with all their richness and splendour, are certainly deficient in. It is therefore assumed at the outset, that there are many of the Wild Roses which are quite admissible into select Rosegardens; and many more which the hybridizer might turn to his advantage.

Moreover, the writer would urge a plea on behalf of Single Roses, which are very summarily set aside as inferior to those having double blossoms. Even if only for the sake of variety, he would submit that a Single Rose, highly coloured and finely formed-that is, floriculturally modelled, or improved, as it is called-is a thing not to be despised. Who scouts the Austrian Brier?

It may be useful to the uninitiated if the application of some of the terms which, in the following notes, have been employed in reference to the different parts of the © plants, is briefly explained:-

Rootshoots, or surculi, are the strong one-year old shoots produced from the base of the plant, and which do not usually produce any blossoms, except from the lateral shoots, which are most commonly produced during the second season : the habit of these rootshoots is different, and this helps to distinguish some of the species.

Branches are the ramifications of the rootshoots or principal stems.
Branchlets are the small lateral shoots produced in some instances from the stronger shoots of the same season's growth.

Arms are the rigid processes borne on the branches, \&c.: it is used when prickles and setæ
are mixed indiscriminately: unarmed is used to denote smoothness, or the absence of prickles and setæ from the same parts.


Prickles: $a$, Rosa aby'ssinica; $b$, R. Brunonii; c, R. sericea; $d$, R. myriacantha.


Setæ: $a$, Rosa stricta; $b$, R, nitida.

Prickles or aculei are the sharp rigid processes which occur on most of the species; in some being straight, and•in others more or less hooked, and also varying much in size.

Setee are small straight prickles or aculei, tipped with a gland; known from true glands by their rigidity : they are believed to exist at some period, in all the species, upon the rootshoots, and become soon changed into bristle-like aculei by losing the gland: in general they are deciduous.


Glands: $a$, Rosa sarmentacea; $b$, R. rubella.


Stipules: $a$, Rosa sericea; $b$, R. Lyellii.

Glands are secretory bodies, for the most part attached to leaves on their under surface, and better distinguished from setæ by their scent than by any thing else. The well-known appearance of the Moss Rose is caused by glands in a peculiar condition.

Pubescence is applied to a kind of downiness caused by the presence of short fine hairs : when found on the branches, peduncles, or the tube of the calyx, it offers an invariable discriminative character, but the reverse if found on the leaves.

Stipules are little leaf-like appendages growing one on each side of the leaf stalk at its base,
to which they always in some degree adhere ; sometimes they are much developed, sometimes they are deciduous.


Bracts: Rosa systyla.
Bracteas are small leafy bodies produced in some species, and always situated between the true leaves and the flowers.

Disk is a term applied to a projecting part of the flower which occurs between the base of the stamens, and the ovary.

Fruit is the hip, or fleshy tube of the calyx grown on to maturity; it is, in strict botanical language, a cynarrhodum.

> ROSA, Linnæus.-The Rose.

Derivation. From the Celtic rhos (from rhodd, "red"), whence the Greek "Pooov, and the Latin Rose.

Generic Character. Calyx urn-shaped, with a limb of five segments, and a fleshy tube, the apex of which is constricted into a ring or glandular disk. Petals five: Stamens numerous; both inserted on the rim of the tube of the calyx. Pericarps numerous, dry, bristly, enclosed in the fleshy calyx-tube.


Perpendicular section of Rose flower: a, sepals;
$b$, petals; $c$, stamens; $d$, pistils ; $c$, pericarps.
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The following systematic enumeration of species is confined to those which are recorded as having been introduced to the gardens of this country. It is probable, however, that many of them do not now exist in a cultivated state; and our gardens may contain some unrecorded species.

Sect. Feroces. Branches clothed with permanent tomentum; leaves falling early in autumn, after which the branches are remarkable for their hoary bristly appearance; fruit perfectly smooth ; sepals usually toothed. Deciduous bushes.


Rosa ferox.


Rosa bracteata.
R. ferox, Lavr. (fierce Rose). A shrub of 3 to 4 feet high, the branches densely covered with prickles all of the same shape; the leaves consist of 5-9 elliptic retuse leaflets; the flowers are large and red; and the fruit scarlet, and of a globose figure. Syn.: R. echinata, Dupont; R. kamtschatika, Red. Var. nitens has glabrous foliage, and paler crimson flowers; it is the R. kamtschatika, $\beta$ nitens, Ser.-Fl. June to Aug.-Cult. 1796.-Caucasus.
R. кamtschatica, Vent. (Kamtschatka Rose). A shrub of 3 or 4 feet high, with large falcate prickles, opaque leaves, of 5-9 obovate leaflets, deep red solitary flowers, and spherical scarlet fruit, smaller than that of R. ferox.-Fl. June and July-Cult. 1791-Kamtschatka.

Sect. Bracteate. Branches and fruit clothed with permanent tomentum; leaves dense, usually shining; prickles placed under the stipules in pairs; sepals nearly or quite simple. Evergreen bushes.
R. involucrata, Roxb. (involucrated Rose). A shrub of 3 to 4 feet, with white nearly solitary flowers, surrounded by 3 or 4 approximate leaves; the leaves consist of $3-9$ leaflets, elliptic, lanceshaped in figure, and downy beneath; bracteas contiguous pectinate. Syn.: R. palustris, Buchan.; R. Lindleyana, Tratt.-Fl. June to Aug.-Cult. 1818-Nepal and China.
R. bracteata, Wendl. (Macartney's Rose). A shrub of 3 to 4 feet, with erect branches, strong hooked prickles, and leaves of 5-9 obovate shining leaflets; flowers pure white, solitary, nearly sessile among the appressed pectinated downy bracteas; fruit woolly, spherical, orange red. Syn.: R. lucida, Lawr.; R. Macartnea, Dum. Var. scabriuscula has the branches setigerous, and the prickles smaller and straightish.-Fl.'June to October-Cult. 1795-China.
R. clinopiy lla, Thory (naked-flowered Rose). A small shrub, with slender hairy branches furnished with stipular prickles in pairs; leaves without bracteæ; leaflets oblong, elliptic, shining above and hairy beneath ; flowers solitary white ; fruit roundish.-Fl. June to AugustCult. 1820-China?

Sect. Cinnamomef. Plants setigerous (next the ground) or unarmed, bracteate; leaflets lanceolate without glands; disk thin (never


Rosa cinnamomea. thickened) ; fruit small round; sepals long narrow, falling immediately after the ripening of the fruit. Deciduous bushes.
R. nitida, Willd. (shining-leaved Rose). A small bush of 2 feet high, with crowded slender straight red prickles, dark-green leaves consisting of 3-7 narrow lanceolate shining leaflets, and deep red flowers; fruit, bright scarlet, depressed spherical. Syn.: R. rubrispina, Bosc.; R. blanda, Pursh.-Fl. June to Aug.-Cult. 1773-Newfoundland.
R. rapa, Bosc. (double Burnet Rose). A diffuse shrub of 3 to 4 feet high, with (usually) unarmed branches, distant leaves of $3-9$ oblong undulated shining leaflets, bright red flowers, and deep red hemispherical fruit. Syn.: R. turgida, Pers.-Fl. June to Aug.-Cult. 1726North America.
R. lucida, Ehrh. (single Burnet Rose). A compact shrub of 4 to 6 feet high, with erect branches, nearly solitary prickles under the stipules, and a few scattered setæ; leaves of 9 oblong imbricated flat shining leaflets; flowers red, overtopped by the leaves and young branches; fruit bright red, depressed globose.-Fl. June to Aug.-Cult. 1773-North America.
R. Lindleyi, Spreng. (Lindley's Rose). A diffuse shrub, of 3 to 4 feet high, with twiggy almost unarmed branchlets, leaves with 7-9 opaque glaucescent oblong leaflets, and rose-coloured flowers, usually growing in pairs. Syn.: R. laxa, Lindl.-Fl. July and Aug.-Cult. 1726North America.
R. Kosingiana, Bess. (Kosingian Rose). A shrub of 4 to 6 feet high; "prickles almost stipular, recurved; leaflets glabrous on both surfaces; peduncles and calyces hispid; fruit, oblong glabrous."-Fl. June and July-Cult. 1825-Podolia.
R. frutetorum, Bess. (bush Rose). A shrub of 5 to 6 feet; "prickles almost stipular, strong, reflexed; petioles unarmed villous; leaflets elliptic, villous beneath; peduncles short glabrous; fruit, globose glabrous."-Fl. May and June-Cult. 1820-Volhynia.
R. parviflora, Ehrh. (small-flowered Pennsylvanian Rose). A dwarf shrub of about 2 feet high, with slender branches, linear stipules, needle-shaped prickles, leaves of (usually) 5 lanceshaped, finely toothed, shining leaflets, and pale blush flowers, usually growing in pairs; "calyces clammy." Syn.: R. humilis, Marsh: R. caroliniana, Michx.-The double-flowered variety is a very neat plant.-Fl. June to Aug.-Cult. 1724-North America.
R. Woodsir, Lindl. (Wood's Rose). A low shrub of 2 or 3 feet high, with dull dark branches, scattered prickles, with a few setæ, leaves consisting of $7-9$ shining flat oblong obtuse leaflets, without pubescence, pink flowers, and ovate naked fruit. Syn.: R. lutea nigra, Promv.-Fl. July and Aug.-Cult. 1815-North America.
R. carolina, Linn. (Carolina Rose). A shrub from 2 to 8 feet high, with erect branches, $t$ win or solitary straight prickles under the stipules, which are convolute, opaque leaves of 7 lance-
shaped leaflets, crimson flowers with spreading sepals, and round scarlet hispid fruit. Syn.: R. virginiana, Du Roi; R. palustris, Marsh; R. corymbosa, Ehrh.; R. pennsylvanica, Michx., R. Hudsoniana, Red.-Var. florida has thinner leaves without pubescence (R. florida, Down; R. enneaphylla, Rafin).-Fl. June and July-Cult. 1726-North America.
R. blanda, Ait. (bland Rose). A shrub of 2 to 6 feet high, the branches armed with scattered deciduous straight prickles and setæ, the leaves opaque with downy petioles, and 5-7 lanceshaped or oblong leaflets; the flowers large, pale red, and solitary.-Fl. May to Aug.-Cult. 1773 -North America.
R. gemella, Willd. (twin-prickled Rose). A low shrub, armed with short hooked prickles growing in pairs beneath the axils of the leaves; leaflets oblong acute; flowers large red; fruit smooth.-Fl. July and August-Cult. 1800-North America.
R. Lyonir, Pursh (Lyon's Rose). A shrub of 3 to 4 feet high with glabrous stems, armed with straight scattered prickles; $3-5$ small ovate-oblong leaflets, smooth above, tomentose beneath, the uppermost leaves simple ; flowers usually ternate, pale red.-Fl. June to AugustCult. 1812-North America.
R. fraxinifolia, Bork. (ash-leaved Rose). A tall erect shrub of 4 to 6 feet high, with dark purple glaucescent branches without prickles, opaque leaves without pubescence of $5-7$ lanceolate leaflets, and small red flowers succeeded by small round pale red fruit. Syn.: R. virginiana, Mill. ; R. corymbosa, Bosc.-Fl. May and June-Cult. 1773-North-West America.
R. cinnamomea, Besl. (cinnamon Rose). An erect grey shrub, of 5 to 6 feet high, the branches armed with a pair of straightish prickles under the stipules, the leaves dense, of 5 , rarely 7 lanceolate leaflets, grey and smonth above, downy beneath; flowers small pale or bright red; fruit round naked crimson. Syn. : R. foecundissima, Moench.; R. majalis, Herm.-Fl. May and June-England and Middle and S. of Europe.
R. Dicksoniana, Lindl. (Dickson's Rose). A shrub of 5 to 6 feet high, with fiexuous setigerous branches, armed with a few scattered prickles, the leaflets oval, the flowers white, and the fruit ovate, urceolate, naked.-Fl. June and July-Said to be a native of Ireland.
R. taurica, Bieb. (Taurian Rose). A greyish shrub, of 5 or 6 feet high, with straight branches, armed below with scattered prickles; leaves, villous beneath with oblong leaflets; flowers red. -Fl. June and July-Cult. 1817-Tauria.
R. dahurica, Pall. (Dahurian Rose). An erect much-branched shrub of 4 to 6 feet high, with slender branches, twin stipular prickles, leaves of 7 lanceolate leaflets, red flowers, and ovate red fruit.-Fl. May and June-Cult. 1824-Dahuria and Mongol Tartary.
R. majalis, Retz. (dwarf cinnamon Rose). A small grey shrub of 3 or 4 feet high, with straight branches, scattered nearly equal prickles, and leaves of (usually) 7 oblong glaucous leaflets; flowers solitary, pale red; fruit orange, red, spherical, naked. Syn.: R. mutica, Fl. Dan.; R. spinosissima Gorter ; R. collincola, Ehrh.-Fl. May and June-Cult. P.....-Sweden and Denmark.

Sect. Pimpinellifolie. Plants bearing crowded nearly equal prickles, or unarmed; bractless rarely bracteate; leaflets ovate or oblong; sepals connivent permanent ; disk almost wanting. The number of leaflets varies from 7 to 15. Deciduous bushes.
R. alpina, Linn. (Alpine Rose). An unarmed shrub of 5 to 8 feet high, with erect branches, leaves of 5-9 ovate leafiets, solitary erect blush flowers, and orange-red, pendulous elongated fruit. Syn.: R. rupestris, Crantz; R. monspeliaca, Gouan; R. inermis, Mill.; R. lagenaria, Vill., and various others. The varieties are numerous: pyrenaica (R. pyrenaica, Gouan; R. turbinata, Vill.; R. hispida, Krok) ; pimpinellifolia (R. glandulosa, Bell.; R. pygmæa, Bieb.) ; and turbinata (R. inermis, Delaun.; R. mixta, Tratt.) are recorded as introduced.-Fl. June to Aug.-Cult. 1683-Alps of Europe.
R. rubella, Smith. (reddish Rose). A small erect shrub, of 2 to 3 feet high, the branches covered with nearly equal weak setæ and prickles, leaves of $7-11$ oval leaflets, flowers deep red,
fruit elongated pendulous. Syn.: R. pendula, Roth.; R. alpina, Pall.; R. polyphylla, Willd.; R. Candolleana, Don.-Fl. July-Native of England.
R. stricta, Mfuhl. (upright Rose). A much-branched shrub, of 3 to 4 feet high, with unarmed branchlets, glaucous leaves of $7-11$ roundish leaflets, bright red flowers, and elongated pendulous fruit. Syn.: R. virginiana, Herm. ; R. pendulina, Linn.-Fl. June—Cult. 1726-North America.
R. suavis, Willd. (sweet Rose). A shrub of 3 to 4 feet high, with hispid stems, glabrous leaves, deep purple flowers, and oblong glabrous fruit.-Fl. June and July-Cult. 1817-Native country unknown.
R. acicularis, Lindl. (needle-spined Rose). A tall, compact shrub of 6 to 8 feet high, with erect branches armed with unequal slender straight prickles; leaves dense, opaque glaucous, of 7 oval leaflets; fruit yellowish orange, naked, obversely flask-shaped, drooping. There is a variety called R. pauciflora, Lindl.-Fl. May to Aug.-Cult. ? . . . . . -Siberia.
R. sulphorea, Ait. (double yellow, or sulphur-coloured Rose). A shrub of 4 or 5 feet high, the branches beset with unequal scattered (falcate or nearly straight) prickles and setæ; leaves glaucous of 7 obovate leaflets; flowers large transparent yellow, always double. Syn.: R. hemispherica, Herm.; R. glaucophylla, Ehrh.; R. lutea, Brot.; R. lutea flore pleno, Ray.Fl. July-Cult. 1629-Levant.
R. lutescens, Pursh (yellowish Rose). A stout erect shrub of 4 to 6 feet high, the branches armed with crowded unequal slender recurved prickles; the leaves dense, perfectly free from pubescence, of $7-9$ oval flat leaflets; the flowers solitary pale yellow, followed by large ovate black fruit; the branchlets are without prickles, but rough with glands and hairs. Syn.: R. hispida, Curt.; ? R. flava, Wicks-Fl. May and June-Cult. 1780-Siberia.
R. viminea, Lindl. (twiggy Rose). A shrub of 3 to 4 feet high, with long slender wiry branches, armed with dense setaceous unequal prickles, and a few setæ; the leaves long, membranous, of $5-7$ oblong leaflets ; the flowers are very large. Syn.: R. horrida, Lindl.-Fl. May and June-Cult. 1826-Russia.
R. spinosissima, Linn. (Scotch Rose). A dwarf compact bush, with creeping roots, short stiff branches, beset with very dense unequal (some falcate) prickles and setæ; leaves close, free from pubescence, of about 7 flat nearly orbicular leaflets; flowers small solitary; fruit ovate or roundish, dark coloured, crowned by the connivent sepals. The varieties are numerous: of those recorded as cultivated in this country, the most remarkable are : pumila, with horizontal prickles (peduncles, glandular or bristly-R. spinosissima, Linn.; R. cinnamomea, Herm; R. chamærbodon, Vill.: peduncles, naked-R. spinosissima Eng. Bot.; R. pimpinellifolia, Linn.; R. scotica, Mill.; R. collina, Schrank.); reversa, dwarf with slender prickles, the lower ones deflexed, fruit ovate (R. spinosissima, Jacq.; R. nana, Andr.; R. reversa, Lindl.) ; polycarpa, pilosa, and turbinata, natives of Ireland; Pallasii, taller, with unequal crowded prickles (R. pimpinellifolia, Pall.; R. altaica, Willd.; R. sibirica, Tratt.); argentea, leaflets clothed with white tomentum beneath ; microcarpa with smaller fruit (R. melanocarpa, Bess.) ; ochroleuca with cream-coloured flowers and unarmed petals (R. ochroleuca, Swartz)-Fl. May and JuneEurope.
R. hibernica, Smith (Irish Rose). A shrub of 4 to 6 feet high, with erect branches, armed with slightly-hooked prickles, leaves of 5-7 ovate acute leaflets, the ribs ${ }^{〔}$ hairy beneath; small light-coloured solitary flowers, and deep orange-coloured nearly globular fruit.- Fl. June to Nov. -Ireland.
R. oxyacantha, Bieb. (sharp-spined Rose). A shrub of 2 to 4 feet high, the stems densely armed with setaceous reversed prickles; leaflets $5-7$ glabrous and sharply serrated; flowers red ; fruit nearly globose glabrous.-Fl. June and July-Cult. 1820--Siberia.
R. sanguisorbifolia, Donn (burnet-leaved Rose). A shrub of 3 to 5 feet high, with nearly equal prickles, 9-11 oblong glabrous leaflets, white flowers, and globose depressed dark fruit.Fl. May and June-Cult. P. . . .-Native country unknown.
R. grandiflora, Lindl. (large-flowered Rose). A shrub of 4 to 6 feet high, chiefly differing from R.spinosissima in having the branches without setæ, the prickles nearly equal and distant, and bearing larger flowers, which are white followed by dark fruit. Syn.: R. pimpinellifolia, Bieb.-Fl. June and July-Cult.? 1818—Siberia.
R. myriacantha, De Cand. (myriad-spined Rose). A little stunted shrub of about 2 feet high, with almost simple erect shoots, defended by dense slender unequal straight prickles and setæ; the largest prickles are dagger-formed; the leaves are without pubescence, of 5-7 elliptical or orbicular leaflets; flowers small solitary white; fruit dark. Syn.: R. parvifolia, Pall.; R. provincialis, Bieb.-Fl. May and June-Cult. 1820-France.
R. involuta, Smith (involute-petalled Rose). A compact shrub of 2 to 3 feet high, with strong dense unequal straight prickles; leaves of 5-7 ovate opaque leaflets ; flowers solitary red and white with convolute petals; and black prickly fruit. Syn.: R. nivalis, Donn.-Fl. JuneHebrides.
R. reversa, Waldst. (reversed Rose). A shrub of from 2 to 5 feet high, the branched stems armed with setaceous nearly equal reflexed prickles; the leaves pale green, with 5-7 ovate leaflets, downy beneath ; flowers solitary white ; fruit ovate, dark purple, hispid.-Fl. June and July-Cult. 1817-Hungary.
R. marginata, Wallr. (marginate Rose). A tortuous shrub of 1 to 2 feet high, protected below by a few large, and above by dense small straight prickles; the younger branches are frosted; the leaflets ovate-cordate, glabrous and triply serrated; flowers scentless, blushcoloured; fruit, ovate globose purplish.-Fl. July and Aug.-Cult. 1823-Germany.
R. Sabini, Woods (Sabine's Rose). A shrub of 8 to 10 feet high, with erect branches armed with distant falcate prickles and a few setæ ; the leaves are grey, distant, of 5-7 oval leaflets; flowers red, solitary or in bunches; fruit ovate, scarlet, hispid. Var. Doniana has the leaves very hairy, the prickles nearly straight 'and very numerous, and very few setæ (R. Doniana, Woods) ; gracilis has fewer prickles, the largest ones hooked (R. gracilis, Woods; R. villosa, Smith).-Fl. June and July-Britain.


Rosa Wilsoni.
R. Wilsoni, Borrer (Wilson's Rose). A slender shrub of 2 to 4 feet high, the branches well furnished with very unequal straight prickles and glandular setæ; leaves of 5-9 ovate hairy leaflets; flowers usually three together, pink; fruit nearly globular, scarlet.Fl. June and July-England.
R. livescens, Bess. (livescent Rose). A shrub of 4 or 5 feet high, with stipular spreading prickles, oblong livid leaflets, and oblong smooth fruit. Syn.: R. guttensteingensis, Jacq. -Fl. June and July-Cult. 1822-Volhynia.
R. gorinkensis, Fisch. (Gorinki Rose). A shrub of 4 to 6 feet high, with shining nearly unarmed branches, pubescent leaves, and globose glabrous fruit.-Fl. June and July-Cult. 1825-Russia.
R. cordscans, Waitz (glittering Rose). A shrub of 4 to 5 feet high, with a very prickly and bristly stem, glabrous oblong-lanceolate leaflets, pink flowers, and globular naked fruit. - Fl. July and August-Cult. 1823-Native country unknown.

Sect. Centifolite. Plants bearing bristles and prickles; bracteate; leaflets oblong or ovate, wrinhled; disk thickened enclosing the throat; sepals, compound. The species are all setigerous; and all deciduous.
R. damascena, Mill. (Damask Rose) A compact shrub of 2 to 4 feet high, with unequal prickles, the larger ones falcate; the flowers are large, white or red, single or double; "sepals, reflexed;" fruit elongate. Syn.: R. belgica, Mill.; R. calendarum, Mœonch.; R. bifera, Poir.-Fl. June and July-Cult. 1573-Syria.


Rosa centifolia; $u$, fruit of R, damascena sub-alba.
R. centifolia, Linn. (hundred-leaved Provence, or Cabbage Rose). A shrub of 3 to 5 feet high, with unequal prickles, the large ones falcate; the leaflets ciliated with glands; flowers cernuous, white or red, single or (most commonly) double; "sepals not reflexed;" fruit oblong or roundish, not elongated. Syn.: R. provincialis, Mill.; R. polyanthos, Rossig.; R. caryophyllea, Poir.; R. unguiculata, Desf.; R. varians, Pohl.-Var. muscosa has the calyx and peduncles mossy (R. muscosa, Mill.-Moss Rose) ; Pomponia is smaller in every part ( R . pomponia $\boldsymbol{D e}$ Cand.; R. burgundiaca, Pers.; R. divionensis, Rossig.-Pompone Rose) ; bipinnata has the leaves bipinnate (celery-leaved Rose).-Fl. June and July-Cult. 1596-Caucasus.
R. gallica, Linn. (French or officinal Rose). A compact shrub of 2 to 3 feet high, with weak nearly equal uniform prickles; stiff elliptic leaflets; flowers erect, red to crimson, single or double; fruit nearly globose. Syn. : R. centifolia, Mill.; R. sylvatica, Gater.; R. rubra, Lam.; R. holosericea, Rossig.; R. belgica and R. blanda, Brot. Var. pumila has single flowers and a creeping root (R. pumila, Linn.; R. repens, Monch.; R. austriaca, Crantz; R. olympica, Donn).-Fl. June and July-Cult. 1596-Central Europe.
R. pygmea, Bieb. (pigmy Rose). A shrub of about 2 feet high, with unarmed stems, the branches hispid with prickles; the leaflets ovate, acute, glandularly biserrated; flowers red; fruit obovate.-Fl. June and July-Cult. ? . . . .-Tauria.
R. parvifolia, Ehrh. (small-leaved or Burgundy Rose). A compact dark-looking bush of 1 to 2 feet high, with straight erect branches armed with slender unequal scattered, somewhat falcate prickles, and a few setæ; leaves of $3-7$ small stiff ovate leaflets; flowers purple, very double, overtopped by the young shoots. Syn.: R. burgundiaca, Rossig.; R. remensis, Desf.Fl. June and July-Cult. ?. . . .-Europe.
R. pulchella, Willd. (neat Rose). A shrub of about 2 feet high, allied to R. turbinata, but smaller, the prickles of the stem scattered, the peduncles and calyces beset with glandular bristles, and the petioles with glandular pubescence, but unarmed; flowers small. This is perhaps the same as the Rose de Meaux of gardens.-Fl. June and July-Cult.? 1824-France.
R. adenophylla, Willd. (gland-leaved Rose). A shrub of 4 or 5 feet high, the branches armed with scattered prickles, the peduncles and calyces beset with glandular bristles, the petioles with glandular pubescence but unarmed; the leaves simply serrated, with glandular margins, glaucous beneath ; flowers large, single, red.-Fl. June and July-Cult. 1816-Native country unknown.

Sect. Villose. Plants with straightish prickles, and producing straight surculi (root shoots); leaflets ovate or oblong, with diverging serra-
 tures; sepals connivent persistent ; disk thickened closing the throat. Deciduous shrubs, mostly with erectish branches.
R. turbinata, Ait. (Frankfort Rose). A shrub of 4 to 6 feet, with the habit of $R$ damascena; the branches have equal straight prickles, but no setæ; leaves villous beneath ; flowers large, red, very double, the "tube of the calyx turbinate." Syn.: R. campanulata, Ehrh. ; R. francofortiana, Mreench. ; R. francfurtensis, Rossig. - Fl. June and July-Cult. 1629-Germany.
R. villosa, Linn. (villous Rose). A large shrub, sometimes forming a small tree; branches very glaucous, with strong straight (or somewhat falcate) equal prickles, the branchlets with a few or no setæ; leaves large grey, of five unequal elliptic rugose leaflets, downy all over, and coarsely serrated ; flowers often in pairs, red or pink ; fruit elliptical or globose, purplish red or crimson, with a grey bloom, bristly. Syn.: R. mollis, Smith; R. heterophylla, Woods; R.pulchella, Woods; R. pomifera, Herm. Var. sylvestris, has flexuous stems, hooked prickles, leaves hoary on both sides, and sepals deciduous before the ripening of the fruit (R. sylvestris, Lindl.); resinosa, dwarf, grey, with rarrow leaflets; Sherardi has conical hooked prickles, leaflets downy on both sides, fruit globular, abrupt (R. Sherardi, Davies).-Fl. June and JulyBritain.
R. boreykiana, Bess. (Boreykian Rose). A shrub of 6 to 8 feet high, the branches of which are furnished with scattered recurved prickles; the leaflets are doubly serrated, pubescent beneath, and glandular on the margin ; the flowers are borne in corymbose clusters, and are blush coloured; fruit oblong, glabrous.-Fl. June and July-Cult. 1827 - North of Podolia.
R. tomentosa, Smith (tomentose Rose). A spreading grey looking shrub of 7 or 8 feet high, the branches armed with straight (rarely falcate) equal scattered prickles, and without setæ ; the leaves hoary, of about 5 oblong, or ovate obtuse leaflets; the flowers are reddish, white at the base ; fruit purplish elliptical, usually hispid. Syn.: R. villosa, Ehrh.; R. mollissima, Börk; R. dubia, Wibel. Var. scabriuscula has greener leaves, nearly smooth except on the ribs (R foetida, Batard).-Fl. June and July-Britain.
R. alba, Linn. (white Rose). A spreading greyish shrub of 6 or 7 feet high, with strong branches armed with straightish slender scattered prickles, and no setæ; the leaves of 5 or 7 oblong glaucous leaflets; flowers large numerous white, or delicate blush, gratefully fragrant; fruit oblong deep scarlet. Syn.: R. usitatissima, Gat.-Fl. June and July-Cult. 1597-Europe.
R. molus, Led. (soft Rose). A shrub of 4 to 6 feet high, with glabrous unarmed branches, and obtuse leafiets villous on both sides; "ovaries ovate, glaucous, and prickly." Syn.: R. Ledebourii, Spreng.-Fl. June and July-Cult. 1818-Caucasus.
R. teredinthacea, Bess. (turpentine Rose). A shrub of 4 to 6 feet high, the branches of which are armed with straight compressed prickles ; leaflets tomentose beneath ; flowers blush, in corymbose clusters; fruit oblong, tapering to both ends, bristly.-Fl. June and July-Cult. 1825-Podolia.

Sect. Rubiginose. Plants with unequal prickles, sometimes bristle-formed, rarely wanting; leaf-
 lets ovate or oblong, glandular, with diverging serratures; sepals permanent ; disk thickened; surculi arched.-Deciduous erectish shrubs, distinguished by the lower surface of the leaves being glandular.
R. lutea, Dodon. (yellow Eglantine Rose). A naked-looking bush of about 4 feet high, with erect dark-brown shining branches, armed with pale straight nearly equal prickles, and no setæ; the leaves are shining, of 5 to 7 elliptic leaflets, more or less hoary beneath ; the flowers are solitary deep yellow, large, and cup-shaped. Syn.: R. eglanteria, Linn; R. foetida, Herm.; R. chlorophylla, Ehrh.; R. cerea, Rossig. Var. punicea (Austrian brier) has the petals scarlet above and yellow beneath (R. punicea, Mill; R. lutea bicolor, Jacq.); flore-pleno(Williams's double yellow) is a handsome double-flowered yellow Rose ; as also is Hoggii, an American variety.-Fl. June-Cult. 1596 - Germany and South of France.
R. rubiginosa, Linn. (Sweet Brier, or Eglantine). A much branched shrub of 4 to 6 feet high, with flexuose branches armed with numerous strong hooked unequal prickles, dull green, rugose, sweet-scented leaves of $5-7$ roundish ovate leaflets, which are covered with numerous glands beneath, and pale blush or pink flowers, two or three together, the "peduncles and calyx hispid with weak setæ"; fruit orange red, roundish or obovate, hispid or smooth, crowned by the ascending sepals. Syn.: R. suavifolia, Lightf.; R. eglanteria, Mill. The varieties are numerous :-micrantha has the prickles nearly equal, the calyx deciduous, and the fruit small, elliptic or obovate (R. micrantha, Sm.; R. odoratissima, Scop. ; R. Crantzii, Schultes) ; umbellata has branches very prickly, the flowers several in a fascicle, and the fruit globose, nearly smooth (R. umbellata, Leers; R. tenuiglandulosa, Mer.; R. sempervirens, Roth.; R. eglanteria cymosa, Woods) ; grandiflora, with large flowers and purple fruit (R. grandiflora, Wallr.); flexuosa, with very flexuose branches, and nearly orbicular leaflets (R. flexuosa, Ran.; R. montana, D.C.; R. Reynieri, Hall) ; rotundifolia, with flail-like branches, and roundish leaflets; sepium, with slender flexuose branches, shining leaflets, subsolitary flowers, and polished fruit (R. sepium, Thuill.; R. helvetica, Hall; R. myrtifolia, Hall ; R. agrestis, Savi ; R. biserrata, Mer. ; R. macrocarpa, Mer.; R. stipularis, Mer.) ; inodora, with prickles much hooked, nearly equal, oblong leaflets nearly scentless, deciduous sepals, and smooth oblong fruit ( $\boldsymbol{R}$. inodora, Fries; R. dumetorum, Smith; R. Borreri, Woods) ; aculeatissima, with very prickly branches, flowers usually solitary, and fruit ovate; parvifolia, a stunted plant, with small round leaflets, and setigerous branches (R. micrantha, D. C.)-Fl. June and July-Britain and throughout Europe.
R. suaveolens, Pursh (American Sweet Brier). A shrub of 5 to 6 feet high, the branches furnished with straight scattered prickles, the leaflets scented, ovate, and sparingly glandular beneath; flowers usually solitary, pink, with entire sepals; fruit ovate.-Fl. June and JulyCult. P. . . .-North America.
R. montana, Vill. (mountain Sweet Brier). A small shrub of 2 to 3 feet high, with strong red branches armed with solitary hooked prickles, roundish abrupt smooth leaves, hardly glandular, and small white flowers.-Fl. June and July-Cult. 1820-Tauria.
R. pulverulenta, Bicb. (powdery Brier). A stiff shrub of 5 to 6 feet high, the branches having numerous slender setx, tipped with glands, the prickles recurved, the leaves of 5-7
oval leaflets frosted all over with grey glands, the flowers solitary pale red, and the fruit ovate hispid. Syn. : R. pruinosa, Lodd. Cat. Var. eriocarpa has the fruit smooth (R. pulverulenta, Lyell).-F1. May to July-Cult. 1817-? Caucasus.
R. uncinella, Bess. (small hooked Brier). A shrub of 5 to 6 feet high, the branches armed with scattered recurved prickles, the leaflets pubescent beneath, glandular on both surfaces, the fruit oblong glabrous. Syn.: R. uncinata, Bess.-Fl. June and July-Cult. 1825-Volhynia and Tauria.
R. caryophyllacea, Bess. (clove-scented Brier). A shrub of 5 to 6 feet high, the branches armed with equal, scattered, recurved prickles, the leaflets hoary beneath, glandular on both surfaces, the fruit oblong glabrous.-Fl. June and July-Cult. 1825-Podolia and Iberia.
R. iberica, Stev. (Iberian Rose). A shrub of 4 to 6 feet high, with scattered hooked prickles, the leaflets broad ovate, glandular on both surfaces, the fruit ovate, smooth, or slightly bristly.-Fl. June and July-Cult. 1820-Eastern Iberia.
R. cuspidata, Bieb. (cuspidate-sepalled Rose). A much branched shrub of 3 to 5 feet high, the branches with strong hooked scattered prickles, the leaflets 7 ovate-lanceolate, smooth above, hairy beneath ; flowers white, sepals ending in a narrow serrated point; fruit ovate, hispid, dark purple.-Fl. June and July-Cult. P. . . -Tauria.
R. glutinosa, Smith (clammy Brier). A low bushy shrub of 2 to 3 feet high, the old branches armed with strong close unequal hooked prickles, the young ones downy with smaller and more slender prickles; the leaves hoary of $5-7$ small roundish leaflets, glandular and viscid on both sides; the flowers small, pale blush solitary ; the fruit scarlet, covered with little stiff prickles, and crowned by the hoary sepals. Syn.: R. rubiginosa cretica, Red.-Fl. June and July-Cult. 1821-Mount Parnassus, Sicily, and Crete.
R. dimorpha, Bess. (variable Brier). A shrub of 5 to 6 feet high, with the prickles of the branches scattered and recurved; the leaflets are pubescent on both surfaces, and the flowers crowded, with a very glandular calyx. - Fl. June and July - Cult. 1821 - Podolia and Volhynia.
R. willdenovi, Spreng. (Willdenow's Rose). A shrub of 4 to 6 feet high, with the prickles opposite on the branches, a little recurved, the leaflets oblong villous beneath, and full of resinous dots ; flowers solitary ; fruit ovate glabrous.-Fl. June and July-Cult. ! . . . -Siberia.
R. Klukir, Bess. (Kluki's Brier). A shrub of 5 to 6 feet high; the prickles of the stem strong, compressed, recurved ; the leaflets small elliptic acute, villous above, rusty and glandular beneath ; flowers pink ; fruit with glandular bristles. Syn.: R. floribunda, Stev.; R. balsamea, Bess.-Fl. June and July-Cult. 1819—Tauria.
R. floribunda, Bess. (bundle-flowered Rose). A shrub of 5 to 6 feet high, the prickles of the stems strong and recurved; leaflets wrinkled, glandular beneath and on the margins; flowers aggregate ; fruit elliptic oblong with glandular hairs. - Fl. June and July-Cult. 1821Podolia.
R. Montezume, Humb. and Bonpl. (Montezuma's Brier). An unarmed shrub of 4 to 6 feet high ; the leaves consist of 5 oval acute leaflets naked on both sides ; flowers pale red, solitary, terminal.-Fl. June and July-Cult. 1823-Mexico.

Sect. Canine. Plants with equal hooked prickles; leaflets ovate, glandless or glandular, with connivent serratures; sepals deciduous; disk thickened closing the throat; larger surcuti arched. Deciduous or sub-evergreen shrubs, in some instances sarmentose.
R. caucasea, Pall. (Caucasian Dog-rose). A very robust shrub of 10 or 12 feet high, nearly allied to $\boldsymbol{R}$. canina; it has remarkably soft ovate leaflets, and the large pale red or white flowers grow in bunches; fruit smooth, with 50 to 60 ovaria. Syn.: R. leucantha, Bieb.-Fl. June and July-Cult. 1793-Iberia.
R. canina, Linn. (common Dog-rose). A straggling bush of 6 to 8 feet high, the branches armed with strong, scattered, hooked, nearly equal prickles, and without setæ; the leaves quite smooth, of 5-7 ovate or oblong leaflets; the flowers are large, pale red; fruit ovate or


Rosa canina.
oblong, scarlet, shining. The pulp divested of the seeds forms a very grateful conserve with sugar; besides saccharine matter, it contains citric acid. Syn.: R. dumalis, Bechst.; R. andegavensis, Bat.; R. glauca, Lois; R. nitens, Mer. ; R. teneriffensis, Donn ; R. surculosa, Woods ; R. sarmentacea, Woods; R. nuda, Woods; R. arvensis, Schranck. The varieties are exceedingly numerous; some of the most striking are: aciphylla, dwarf, with smooth leaves and smaller flowers (R. aciphylla, Rau); obtusifolia has the petioles glandular, the leaflets ovate-roundish, and rather pilose beneath (R. obtusifolia, Desv.; R. leucantha, Bieb.); pilosiuscula has the petioles tomentose and hispid, and the leaflets ovate acute puberulous beneath, and smoothish above ( $R$. humilis, Bess.; R. nitidula, Bess.; R. friedlanderiana, Bess.; R. collina, Rau.); microcarpa has smaller fruit, and the leaflets oblong-lanceolate velvety beneath; ambigua has straight prickles, flowers solitary or three together, and ovate-globose fruit (R. malmundiariensis, Lej.) ; rubiflora has the prickles strong and rather puberulous, large smooth leaflets, and usually solitary flowers about the size of those of Rubus Idcus; dumetorum has the leaflets flat and more or less hairy on both surfaces (R. dumetorum, Thuill. ; R. sepium, Borkh. ; R. corymbifera, Gmel. ; R. bractescens, Woods ; R. solstitialis, Bess.) ; Fosteri has the leaflets more or less hairy, and not flat (R. Fosteri, Sm.; R. collina, Woods) ; cresia has very glaucous leaflets, hairy beneath (R. cæsia, Sm.)Fl. June and July-Britain, and throughout Europe, and Northern Asia.
R. collina, Jacq. (hill Dog-rose). A shrub of 4 to 5 feet high, the branches armed with hooked prickles; leaflets roundish, smooth above, hoary with pubescence beneath; flowers aggregate pink; fruit smooth. Syn.: ? R. frutetorum, Bess.; R. umbellata, Leys.; R. fastigiata, Bat.; R. platyphylla, Rau.; R. psilophylla, Rau.-Fl. June and July-England and Europe.
R. baltica, Roth. (Baltic Dog-rose). A shrub of 5 to 6 feet high, with leaves consisting of oblong-ovate obtuse leaflets, and pale red flowers.-Fl. June and July-Cult. ? . . .-Rostock.
R. Saxatilis, Stev. (rock Dog-rose). A shrub of 4 to 6 feet high, with strong scattered recurved prickles, rather large smooth leaflets, pale beneath, and flowers in corymbs.-Fl. June and July-Cult. 1825-Tauria.
R. rubrifolia, Vill. (red-leaved Dog-rose). A shrub of 5 to 6 feet high, with purple stems armed with short pale hooked equal prickles; leaflets ovate glaucous, opaque, rugose, red at the edges ; flowers corymbose, small, deep red; fruit oblong, smooth, with tender flesh. Syn.: R. multiflora, Reyn.; R. rubicunda, Hall ; R. glauca, De.f.; R. glaucescens, Wuif.; R. lurida, Andr.-Fl. June and July-Cult. 1814-Austria, Pyrenees, \&c.
R. Sericea, Lindl. (silky Rose). A shrub of 4 to 6 feet high, with stiff brown branches, large compressed stipular prickles, with the points turning upwards, close leaves of 7-11 oblong flattish blunt leaflets, serrated at the top, beneath pale, with the rib and principal veins silky; the flowers are solitary, red; fruit naked.-Fl. June and July-Cult. 1823-Nepal and Gossainthan.
R. microphylla, Roxb. (small-leaved Rose). A compact shrub of about 3 feet high, with slender branches, furnished under the stipules with straight prickles; the leaves consist of 5-9
small shining roundish-ovate leaflets, quite free from pubescence ; the flowers solitary, very double, pale red, the calyx covered with close-set straight prickles. It has a resemblance to the Macartney Rose in its general appearance.-Fl. June to August-Cult. 1822-China.
R. indica, Linn. (Monthly or Common China Rose). A stout shrub, with glaucous branches armed with scattered, compressed, equal hooked brown spines; the leaves are shining, without pubescence, and consist of 3-5 elliptic leaflets; flowers pink, usually semidouble in panicles ; fruit obovate, scarlet. Syn.: R. sinica, Linn.; R. semperflorens carnea, Rossig. There are numerous varieties, of which the most distinct are : odoratissima, with most deliciously scented flowers (R. odoratissima, Scot.; R. indica fragrans, Red.) ; ochroleuca, with large double creamcoloured scentless flowers; flavescens, the true tea-scented yellow China Rose; longifolia, with long lanceolate leaflets (R. longifolia, Willd.; R. salicifolia, Hort.) ; pumila, a form smaller in every part. The original of the race of Noisette Roses is a hybrid descendant from this species. -Fl. March to November-Cult. 1789-China.
R. semperflorens, Curt. (ever-flowering China Rose). A smaller elegant shrub, with slender branches armed with scattered compressed hooked prickles and few glands; the leaves are shining, deeply stained with purple, of 3-5 ovate-lanceolate leaflets; flowers solitary, deep crimson ; fruit spherical. Syn.; R. diversifolia, Vent.; R. bengalensis, Pers. ; R. chinensis, Jacq. ; R. indica, Red.-Fl. March to November-Cult. 1789-China.
R. Latrenceana, Sweet (Miss Lawrence's China Rose). A compact shrub of about a foot high, the branches armed with large, nearly straight prickles; the leaflets ovate, and the flowers small, semi-double, pale blush. Syn.: R. semperflorens minima, Sims.-Fl. March to November-Cult. 1810-China. The parent of the class of Fairy Roses.

Sect. Sxstyle. Styles cohering into an elongated column; stipules adnate. Deciduous, or in
 many cases sub-evergreen shrubs, with much the habit of Sect. Canince.
R. systyla, Bat. (close-styled Dog-rose). A slender shrub of 8 to 10 feet high, with much the character of $R$. canina; the surculi are assurgent, the prickles strong and hooked, the leaflets ovate, the flowers fragrant, pinkish, the fruit ovate oblong. Syn.: R. collina, Sm.; R. stylosa, Desv.; R. brevistyla, D. C. Var. lanceolata has ovate-lanceolate leaves, and spherical fruit; Monsonice is dwarfer, and has the flower-bearing shoots erect, and terminated by an unusually large bunch of flowers.-Fl. May to July-Britain and Europe.
R. arvensis, Huds. (field Rose). A rambling or trailing shrub, with slender branches armed with scattered equal prickles, either falcate or straightish ; the leaves are dark green, distant, of 5-7 ovate somewhat waved leaflets; the flowers white with a yellow base, slightly scented, solitary on the branchlets, numerous on the rootshoots; fruit scarlet, round or oblong. Syn.: R. sylvestris, Herm.; R. scandens, Mœench.; R. herperhodon, Ehrh.; R. Halleri, Krok.; R. fusca, Moench.; R. serpens, Ehrh.; R. rampans, Reyne. Var. hybrida has semidouble delicate flesh-coloured flowers: it is alled in nurseries the Double-hip Rose (R. germinata, Rau.; R. hybrida, Schleich.; R. Gallica hybrida, Gand.). The Ayrshire Roses appear to have originated from a variety called Ayrshirea (R. capreolata, Neill),-F1. July-Britain.
R. sempervirens, Linn. (evergreen Rose). A climbing shrub with long slender shoots, armed with slender somewhat hooked prickles; leaves shining, evergreen, of 5-7 oval or ovatelanceolate leaflets; flowers numerous, white, fragrant; fruit small, round, orange coloured. Sym.: R. scandens, Mill.; R. balearica, Desf. ; R. atrovirens, Viv. There are some cultivated varieties, among which are R. Russelliana, and the rose Clare.-Fl. June to August-Cult. 1629-South Europe.
R. multiflora, Thunb, (many-flowered Rose). A sub-climbing shrub, with long naked flexuose branches furnished beneath the stipules with a pair of hooked prickles; leaves of 5-7 approximate, soft, dull, lanceolate leaflets, hairy on both sides; flowers small, numerous, single or double, pale or red; fruit turbinate, bright red. Syn.: R. flava, Donn; R. florida, Poir. ; R. diffusa, Roxb. There are some varieties, as-Thunbergiana, with small white double clustered flowers; carnea, with small pink double clustered flowers; Grevillei, with large double clustered flowers, purple, changing colour as they fade (R. Roxburghii, Hort. ; R. platyphylla, Red.; R. Thoryi, Tratt.) ; Boursaultii, an early free-flowering Rose, with small double pink flowers.-Fl. June and July-Cult. 1804-Japan and China.
R. Brunonir, Lindl. (Brown's Rose). A rambling shrub, the branches 10 to 12 feet long, older ones sparingly hairy and armed with scattered short strong hooked prickles, younger ones downy and glandular ; leaves dull green, of 5-7 flat lanceolate leaflets, hairy all over ; flowers in terminal bunches, white or pale red. Syn.: R. Brownii, Spreng.-F1. June and July-Cult. 1820-Nepal.
R. moschata, Mill. (musk Rose). A rambling shrub of 10 to 12 feet high, the branches sparingly glandular, armed with nearly equal strong hooked scattered prickles; leaves naked above, glaucous beneath, of 5-7 unpolished ovate-lanceolate leaflets; flowers in very numerous many-flowered cymes, pure white with a scent of musk; fruit small red. Syn.: R. opsostemma, Ehrh.; R. glandulifera, Roxb. Var. nivea has ovate-cordate leaflets, and large white or pale rose-coloured flowers; multiplex has double white flowers; nepalensis has longer sepals than in the species.-Fl. July to Oct.-Cult. 1596-North of Africa and Madeira. This is said to be the species which yields the Persian Attar of Roses.
R. anemoneflora, Lindl. (anemone-flowered Rose). A moderate-sized shrub, with smooth branching stems, which are somewhat setigerous and glandular ; the leaves are usually ternate, rarely pinnate, with ovate lance-shaped leaflets, glaucous beneath; the flowers grow in somewhat globular clusters; they are small, pale blush, the outer petals broad, forming a kind of cup, the interior filled up with a great number of narrow ragged confused petals, which result from the deformation of the stamens.-Fl. June and July-Cult. 1845-China; found in the gardens of Shanghae.
R. rubifolia, Brown (bramble-leaved Rose). A shrub of 3 to 4 feet high, with straight ascending rootshoots, glabrous branches armed sparingly with scattered falcate prickles, and distant leaves of about 5 ovate leaflets shining above and downy beneath; the flowers are small pale red, and grow about three together; fruit small, round, naked. Var. fenestralis has solitary flowers, and smaller leaflets smooth on both sides (R. fenestrata, Donn).-Fl. Aug. and Sept.-Cult. 1830-North America.

Sect. Banksianse. Plants with trailing stems; leaves usually ternate shining; stipules nearly free, subulate or very narrow, usually deciduous. Rambling deciduous or sub-evergreen shrubs, somewhat tender.
R. Levigata, Mich. (smooth Rose). A climbing shrub, with scattered falcate prickles, leaves entirely free from pubescence, coriaceous, and shining when old, formed of ovate-lanceolate leaflets; flowers solitary, large, white; fruit oblong, red, muricated with stiff prickles, and crowned by the indurated sepals.-Fl. July to September-Cult. 1826-North America.
R. sinica, Ait. (three-leaved China Rose). A rambling shrub, the branches armed with
equal, scattered red falcate prickles; the leaves very shining, with ovate-lanceolate leaflets, pale beneath, with a prickly rib; flowers large white solitary; fruit elliptic, orange red, muricate, crowned with the spreading rigid sepals. Syn.: R. hystrix, Lind. ; R. trifoliata, Bosc.; R. ternata, Poir.; R. cherookensis, Donn.-Fl. May to July-Cult. 1759-China.
R. microcarpa, Lindl. (small-fruited Rose). A rambling shrub, with slender branches defended by a few small scattered deciduous hooked prickles ; the leaves are distant, deciduous, of 3 or 5 oblong or ovate-lanceolate shining leaflets; flowers numerous, corymbose, small, white; fruit small scarlet pea-formed, the sepals deciduous.-Fl. May to SeptemberCult. 1822-China.
R. Banksie, Brown (Lady Banks's Rose). A climbing and rambling shrub, with unarmed weak dull green branches; the leaves entirely free from pubescence except at the base of the centre nerve, where they are very hairy, of 1-5 flat oblong-lanceolate obtuse leaflets; flowers


Rosa sinica. numerous, corymbose, nodding, small white and very double, with a weak but pleasant scent; fruit small, globose, black, unarmed. Syn. : R. Banksiana, Abel ; R. inermis, Roxb. Var. lutea differs in having the blossoms of a nankeen yellow.-Fl. June and July-Cult. 1807-China.

The following species are recorded as introduced, but their position in the preceding arrangement is not well ascertained.
R. Americhan, Link. (American Rose). A moderate-sized shrub, bearing rose-coloured blossoms.-Fl. May and June-Cult. 1822-America.
R. actuta, Fisch. (acute-leaved Rose). A moderate-sized shrub, having the leaves sharply pointed, and producing blush coloured flowers.-Fl. June and July-Cult. 1821-Caucasus.
R. Armide, Webb (Armida's Rose). A shrub, of which little is known.-Fl. June to Aug.Cult. 1829-Teneriffe.
R. Biebersteinit, Lindl. (Bieberstein's Rose). A shrub growing about two feet high, and producing white blossoms.-Fl. May and June-Cult. 1822-Caucasus.
R. Fischeriana, Bess. (Fischer's Rose). A moderate-sized shrub, producing blush-coloured flowers.-Fl. June and July-Cult. 1825-Russia.
R. hispanica, Mill. (Spanish Rose). A shrub of 3 or 4 feet high, armed with strong prickles; leaves villous on both surfaces ; flowers bright red; fruit glabrous.-Fl. May-Cult.?...-Spain.
R. mericata, Waitz. (muricated branched Rose). A shrub, with a muricated stem and oval obtuse glabrous leaflets.-Fl. June and July-Cult. 1823-Native country unknown.
R. polyphylla, Bess. (many-leaved Rose). A moderate-sized shrub, producing blushcoloured flowers.-Fl. June and July-Cult. 1827-Native country uncertain.
R. purpurascens, Fisch. (purplish Rose). A moderate-sized shrub, producing blossoms of a purplish colour.-F1. June and July-Cult. 1821-Tanaim.
R. Redowskiana, Bess. (Redowski's Rose). A moderate-sized shrub, the flowers of which are blush coloured-Fl. June and July-Cult. 1828-Native country uncertain.
R. rupicola, Fisch. (rock Rose). A moderate-sized shrub, producing blush-coloured blossoms. -Fl. June and July-Cult. 1821-Altaia.

Some Roses at present (1848) un-named have been recently introduced from China, by Mr. R. Fortune, to the garden of the Horticultural Society. One of these he describes as a beautiful double buff yellow climbing Rose of great beauty, very prolific of bloom, and, coming from the more northern districts of the Chinese empire, almost certainly hardy in Europe. Another, a very beautiful and sportive variety of the China Section, is called by the Chinese "five coloured": sometimes it produces self-coloured blooms, either red or French white, frequently both on the same plant; sometimes the flowers are striped: this will also prove hardy. Besides these, there are two other climbing Roses, one with double white, and the other with dark red flowers; and also a purple garden Rose.

It has been thought that some, perhaps, of our readers might be interested by a tabular arrangement of the groups of Roses as recognised by Florists, under the respective botanical species from which they appear to have sprung: such an arrangement is therefore appended, the species ranging here in the same order in which they occur in the preceding "Notes."
Rosa bracteata.
The Macartney Roses (Group 22; ante p. 105).
Rosa alpina.
The Alpine or Boursault Roses (Group 1; ante p. 12).
Rosa sulphurea.
The Double Yellow Roses (Group 2; ante p. 13).
Rosa spinosissima.
The Scotch Roses (Group 3; ante p. 16).
The Perpetual Scotch Roses (Group 30; ante p. 125).
Rosa damascena.
The Damask Roses (Group 4; ante p. 19).
The Four Seasons Roses (Group 24; ante p. 107).
The Roses de Trianon (Group 25 ; ante p. 107).
The Damask Perpetual Roses (Group 26 ; ante p. 109).
The Hybrid Perpetual Roses (Group 27 ; ante p. 114).
The Bourbon Perpetual Roses (Group 28; ante p. 121).
Rosa centifolia.
The Provence Roses (Group 5 ; ante p. 25).
The Pompone or Miniature Provence Roses (Group 6; ante p. 31).
The Moss Roses (Group 7; ante p. 32).
The Perpetual Moss Roses (Group 31 ; ante p. 125).
Rosa gallica.
The French or Gallic Roses (Group 8; ante p. 40).
The Hybrid French Roses (Group 9; ante p. 67).
The Hybrid Chinese Roses (Group 10; ante p. 72).
The Hybrid Bourbon Roses (Group 12; ante p. 87).
The Hybrid Noisette Roses (Group 11; ante p. 85).
Rosa alba.
The Alba or Belgic Roses (Group 13; ante p. 91).
Rosa lotea.
The Austrian Briers (Group 15; ante p. 96).
Rosa rubiginosa.
The Sweet Briers (Group 14; ante p. 95).
Rosa microphylla.
The Microphylla Roses (Group 23 ; ante p. 106).
Rosa indica.
The Chinese Roses (Group 33; ante p. 128).

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    The Tea-scented Roses (Group 35; ante p. 132).
    The Bourbon Roses (Group 36 ; ante p. 140).
    The Roses de Rosomène (Group 29; ante p. 124).
Rosa semperflorens.
    The Crimson Chinese Roses (Group 32; ante p. 126).
Rosa Lawrenceana.
    The Fairy Roses (Group 34; ante p. 131).
Rosa arvensis.
    The Ayrshire Roses (Group 16; ante p. 97).
Rosa sempervirens.
    The Evergreen Roses (Group 17; ante p. 98).
    Rosa multiflora.
        The Multiflora Roses (Group 18; ante p. 99).
Rosa moschata.
    The Musk Roses (Group 37; ante p. 150).
    The Hybrid Musk Roses (Group 19; ante p. 101).
    The Noisette Roses (Group 38; ante p. 151).
Rosa rubifolia.
    The Prairie Roses (Group 20; ante p. 101).
    Rosa Banksie.
    The Banksian Roses (Group 21; ante p. 103).
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Insects-The little dark green caterpillar that destroyed the foliage of Roses to such an extent last summer, is raised from eggs laid in layers on the under side of the leaves about mid-summer. I suspect the female moth or fly, like the wasp, hybernates in some hole or corner in an old wall for instance, and therefore it is next to impossible to discover and destroy it.

All lovers of Roses should not forget to plead the cause of the true Aphis Vastator-the larva of the hawk-fly-that it may escape the general massacre. It devotes its whole time and attention to sucking aphides. Truly it has a wonderful appetite. I watched one suck for a whole hour without a check, and a glorious heap of slain it left. It seemed by no means particular as to whether they were old or young, tender or tough, winged or not winged.

As a check to insects, some recommended washing the Rose-stocks with soap and water; others tie some cotton-wool tightly round the stock, with the view of checking the upward march of the invaders. $-\boldsymbol{R} . \boldsymbol{A}$.

To destroy the Aphis on Rose-trees out of doors-In the "Ladies' Companion to the Flower Garden," under the article Aphis, Mrs. Loudon advises to make a decoction of quassia, in the proportion of an ounce of chips to a quart of water, and dip the infested branches of Roses into it. This cannot be so done upon a large scale, but I have found the use of the decoction so valuable that it ought to be more generally known. My mode of using it is as follows. Having made in the outset a small quantity in the above proportions, and tested it as a guide for my future use, I now make from two to three gallons at a time in a large iron boiler. When cold, on a fine day throw it on your Rose bushes by means of a garden syringe, taking care to wet the under as well as the upper surface of the leaves. In two days' time you will see thousands of the insects adhering to the leaves, but quite dead. Then syringe the bushes with plain water, using considerable force, to wash off the dead aphides. You will no doubt observe many still living, as it is almost impossible to wet them all at one operation. Repeat the syringing with the decoction, and afterwards with the water.

The peculiar advantage of this application is, that it does not injure the blossoms which have opened.
I pay One Shilling per pound for the quassia chips.-An Amateur Subscriber.
The Rose-grub-This perhaps is the worst enemy the Rose has to contend with, and the mode of dealing with it is not generally understood. The moth, of which it is the larva, lays its eggs either on the pith exposed by pruning, or at the base of dormant eyes. To destroy it, when pruning, cover the tops of the shoots laid bare by pruning the year before with the composition recommended for grafting : search the eyes closely, also, at the time they are swelling, and you will pick up many depredators, skulking about, waiting for an opportunity to enter the buds. This attention in spring and autumn will save many flower-buds from destruction. $\boldsymbol{S} \boldsymbol{S}$.

Longevity of the Dog-rose-In a work by M. Deslongchamps (La Rose, \&c.) the author mentions having known a plant of the Dog-rose for 30 years, on which was counted, in 1814, 120 concentric layers: consequently this tree must at the present time be more than 150 years old, although the stem is not more than 3 inches in diameter.-A.

Grafting the Rose-I would suggest a mode of grafting the Rose, which I have found to answer well, and which I have not noticed anywhere. I make vertical incisions in the bark of a young stock, two, three, or even four in a horizontal line, and insert a bud with the wood in each. I then bind all round with one yarn. The head is thus formed without projecting branches, and three or four sorts emanate from the same spot.-T. H.

Green centres in Roses-I think you will agree with me that the causes of the tendency of many Roses to give bunches of leaves instead of flowers, in short, to become viviparous, should be better known than at present they seem to be. Complaints upon complaints are forwarded every year to the Gardening Periodicals; and I confess that I think the answers in some instances are far from being satisfactory. Sudden changes of weather, wet after a duration of dry weather, or hot forcing weather after much rain, have been generally assigned. Now, we are always subject to these changes of weather in this variable climate, and should be prepared to counteract their effects.
Some seven years ago, on my first essay as a Rose cultivator, I laboured under the delusion, that if the plants were induced to grow vigorously I must have in time fine flowers. I obtained about 100 varieties of the best Roses then known, and set to work. At the bottom of each hole I threw in a good shovelful of fresh cow manure, then some strong soil mixed with an equal quantity of hot-bed manure : on this the Rose was planted, the hole filled up with more prepared soil, and the whole topped up with another good large shovelful of the same fresh cow manure. All were similarly treated. Oh, how they did grow that summer! Eight or ten of the most vigorous Hybrid Chinas (Brennus, \&c.) did not give any flower-buds at all. The rest did. But when I expected to have seen flowers, nothing but ugly green clusters of leaves made their appearance. Of course, like others in distress, I complained of them to the "Gardeners' Chronicle."
The reply accused me of having given them too much manure, and that in too fresh a state. It was impossible to have received a better answer. Most assuredly that was the true reason. I have acted upon this ever since with perfect success. Every Rose that exhibits the slightest tendency to produce green centres has a mark placed against its name; and when the manuring time comes round, I either cut off the supplies altogether for the year, and content myself with giving the soil around the roots two good soakings with weak liquid manure,-the first, when the young shoots begin to appear, the second when the flowers are on the point of opening,-or else I remove some of the soil around the roots, and apply fresh. Should any manure be considered necessary, a portion of old cow manure, turned to soil, is given. Having added every year at least fifty fresh Roses to my stock, all the best varieties of every class have come under my notice, and this treatment has almost invariably succeeded. Madame Hardy and De Neuilly will flower
here without any green centre whatever ; and Charles Louis, a beautiful Rose but for this fault, is reduced to good behaviour, altbough he cannot in every instance forget his bad habits.

Though I heard on all sides last year complaints of the abundance of green centres, yet my Roses flowered most perfectly, with one solitary exception-Great Western. This Rose did not grow sufficiently well during the summer of 1845 ; therefore the following February some new manure was forked in around it: hence the cause of the green centres.
I think I have now sufficiently shewn that the indiscriminate use of manure is the principal cause of the developement of bunches of leaves instead of perfect flowers, in that most lovely of all shrubs, the Rose.-A Rose Amateur.

Season for Planting-We are told by some that October is the best of all months for the shifting of trees, and the reason assigned is, that the ground then still retains a sufficiency of warmth to establish the plants in their altered position. This seems a good and feasible reason; but while I obserre you say that, supposing ground to be in order, "autumn planting is thought preferable " to spring operation, others speak of the autumn season of putting in as in November. And in seasons like the present, while the plants are, in numerous instances, still loaded with fresh and vigorous foliage, I cannot dare to shift plants which I am anxious to have transposed and arranged at the very best season that can be taken for the operation. Is it, then, to be understood, that Roses are to be held as an exception to the recommendation for removal in October? and that it would be unsafe to shift them while in growth and clothed with fresh-looking foliage? In many respects the question is an interesting one; the answer to be found in a knowledge of Vegetable Physiology, to which many amateurs like myself can make no pretensions. But it is further interesting in this: if the practice of October planting be allowable and consistent with the perfect safety of the plants, it is quite clear that the knowledge of the fact would tend to promote the cultivation of the "Queen of Flowers," inasmuch as the greater inclemency, in general, of the later month tends in no small degree to damp the enthusiasm of those not the most deeply infected with the Rose-mania-一M. X.
[The state of the season, and the condition of the plants, must regulate our operations here. In early autumas, the wood is, in most cases, sufficiently ripened by October; then the plants cannot be remored at a better time : and if the wood is well ripened, the fresher the foliage the more adrantageous. In late autumns, the first or second week in November is an excellent time.-W. P.]

Stices for tying up Pot-Roses-I have found Willows, such as the basket-makers use, peeled, very good for the purpose. They are light and graceful ; more flexible than deal sticks, and can be brought to any position with great exactitude. $\boldsymbol{- R}$.

Roses whose Flowers expand indifferently-It is not always the fullest Roses whose flower-buds remain sealed till they drop from decay. I believe much depends on the degree of elasticity of the clam of the petals. I have obsersed that the very double fimsy-petalled flowers expand less surely than the full stiff-petalled ones. The former should never be grown in the immediate vicinity of London.- $O$.

Spotted Roses-If Rose amateurs would rise at day-light for only one or two mornings in la belle saison, and view their Spotted Roses before sun-rise, they would find ample compensation for quitting the "falsely luxurious," and set a greater store by these lovely varieties. Alas! that their beauty should be so evanescent. An hour's sunshine fades them.-S.

Striped Unique-Pray are you aware that there are two or three varieties of the Striped Unique Rose? I have purcbased and cultivated two inferior kinds; but, two years ago, I saw a flower at the Norwich Exhibition, which, for colour and size, surpassed all I had previously seen, shewing a fine deep crimson stripe upon the white ground. I then supposed it was extra culti-
vation which had produced it in such a superior state of beauty; but I have since grown it in a poor soil, and the colow was equally good. - R. B. B.
[This is the Superb Striped Unique: there are several kinds of the Striped Unique, which have all flowed from one source-the Unique or White Provence; but which vary in character owing to the different soils and systems of cultivation practised where they have originated.$W$ W. $P$.]

Roses in Paris-The chief advantage Parisian Rose-amateurs possess over us who reside near London is the absence of the coal-combustion nuisance. This may not be very readily understood by Horticulturists who have not visited la belle France; but it should be known that Roses are grown most extensively within the barriers at Paris. In various streets I have been struck with the vigour and beauty of the flowers showing above the rude walls in magnificent profusion. Were it not for the din and clatter that surrounds you, such a spectacle might lead you to suppose yourself many miles from a large and populous city.-A.

Chinese Rose, seed of-Does the Chinese Rose ripen its seed in September? So say some Botanists. If true, it is strange that none of our modern kinds inherit this peculiarity from the parent. I strongly suspect, however, that that item of description has been copied from foreign works, without taking into consideration the influence of foreign climates. Brother cultivators, look to this, that you may not be deceived in your attempts at raising seedlings. $-\boldsymbol{R}$.

Pruning-In pruning Roses, and more particularly those which should be cut close, it is better to leave one bud above that which is intended to be ultimately retained, as the upper bud is often destroyed, very early in the spring, by minute grubs, which pierce into it unperceived, and eat the core, leaving the outer case unharmed ; and the mischief is not discovered till the bud begins to turn brown and wither. I speak, of course, of the buds before they open, and when they are first beginning to swell. I know no other mode of guarding against these minute grubs, but by daily and close examinations of the plant, which is very tedious: they continue their depredations half through the summer; and unless they are constantly and daily destroyed, scarcely any bloom will be obtained. Again, as to the upper bud. The upper bud, if it escapes these grubs, is often broken off by accident; but if all goes on right up to the middle or end of May, the upper bud can be taken off, if the one below it is safe, and if that is the one desired to be retained. In pruning Pillar or Climbing Roses, which are apt to make too much wood if cut close, it is better to cut out the older shoots altogether, down to their very beginning (in order to thin the plant, if necessary), rather than to shorten them much, which would only make them shoot again with greater vigour.-C. $\boldsymbol{H}$.

Giraffe Rose-The most remarkable plant in the Cheshunt Nurseries has not been mentioned in "The Rose Garden." I allude to the Beauty of Billiard, the height of which you can best give. A friend of mine often entertains his acquaintances, who are unblest with a knowledge of these things, with an account of Paul's wonderful Giraffe Rose.- $O$,
[The plant in question is eleven feet clear in the stem: the head is large; and its bright scarlet blossoms, produced in gay profusion, look beautiful against the azure sky.-W. P.]

## I N D E X.




INDEX.


QL $145 . \mathrm{Rmm}$ P3
Paul, William/The rose garden. In two di


[^0]:    * A beegah is half an acre.

[^1]:    * A seer is tro pounds troy.
    $\dagger \mathrm{A}$ tolah is seven pennyweights.

[^2]:    * Every one who has visited Paris will not fail to have remarked the clean appearance of the buildings, compared with those of London, which is due to the burning of wood instead of coal. It is the extensive use of the latter which exerts so injurious an influence on vegetation in or near London. I recollect, upon one occasion, secing a Honeysuckle and a Rose growing up a house in a street in Paris, the name of which I do not remember, but it was not far from the Hôtel de la Monnaie. Both looked flourishing; and the Rose, which was of the Sempervirens kind, was in bloom. Independent of its appearing to thrive there, a second cause for surprise was, the fact of its remaining untouched, which it apparently had done for a length of time, and did, to my knowledge, for five or six days, although within reach of every passer by.

[^3]:    * I recollect meeting with two or three of this description in the gardens of Bruce Castle, Tottenham, in the summer of last year : they were of a prodigious height and size, resembling apple-trees more than Roses.

[^4]:    * The thin-leaved arbute hazel-graffs receives, And planes huge apples bear, that bore but leaves. Thus mastful beech the bristly chestnut bears, And the wild ash is white with blooming pears. And greedy swine from grafted elms are fed With falling acorns that on oaks are bred.
    [Dryden's Tirgit.

[^5]:    * Liebig.

[^6]:    * I have a vivid recollection of committing this error. I once stepped pat on a seedling in the garden of a Rose-grower in France. A glimpse of La Reine, for the first time, was the cause of my misfortune. I was made acquainted with the real state of things by a very un-Frenchmanlike roar. Fortunately the plant was uninjured, but the flower-bud was destroyed; and the amount of mischief done was the keeping of the owuer in a state of suspense for a month or two longer. Perhaps I was very near annihilating a very fine variety.

[^7]:    * Where any particular mode of growing Roses is recommended, a list of a select few suited for the purpose will be given at the end of the work.

[^8]:    * The terms "robust," "vigorous," "moderate," and "dwarf," attached to the varieties in the descriptive part of this work, will be found almost invariably a correct guide in pruning.

[^9]:    * So was it said, not many years ago, that Standard Roses could not be grown in Englandthat the climate of France was essential for their development. Thus prejudice, for a time, triumphed over reason, and they were imported from that country for years. At length, one or two individuals in England took up the work, and held up to view superior plants of their own production. The question of the purchaser to the vendor of Standard Roses was, formerly, Are they French? An answer in the affirmative was their passport to favour. The same question is still asked, but the negative is now the recommendation. English cultivators had not grown them, and they suffered themselves to rest long satisfied that they could not. And the reason why so few seedling Roses have been originated in England is doubtless this-nurserymen have found sufficient occupation in multiplying the kinds put into their hands; amateurs in admiring and attending to the varied wants of their favourites.

[^10]:    * Observations on the Cultivation of Roses in Pots, \&c., by W. Paul. Sherwood and Co., London.

[^11]:    * Manuel Complet de l'Amateur des Roses, par M. Boitard. Paris, 1836. His species are, 1. R. simplicifolia; 2. R. Iutea; 3. R. mutabilis. He divides these into races and varieties; and, according to this arrangement, nearly all the varieties cultivated in European gardens belong to the third species, (R. Mutabilis).
    $\dagger$ I purposely avoid entering into the botany of the Rose, having the promise of a popular article on the subject, which will appear in the Appendix to this work.

[^12]:    * M. Deslongchamps, in his work on the Rose, devotes considerable space to a discussion on the subject of raising Roses from seed, and especially in proving they vary from seed, without being hybridized. What practical man has any doubt on the subject? But with the same stroke he endeavours to establish that the so-called hybrids are not really such;-have not been produced by the union of two distinct species, but by freaks of nature. In this, if he admits as distinct species those plants which most Botanists do, he appears to me to fail absolutely : and he admits that the authority of the French Rose growers, most of whom devote a great part of their time to the raising of seedlings, is against him. M. Vibert, one of the oldest and most distinguished cultivators in France, goes so far as to say that he obtained spotted Moss Roses by crossing the spotted varieties of the Resa Gallica with the Moss kinds. The plants produced from this experiment partook unmistakeably of the characters of each parent, and differed from all pre-existing kinds. The Rosa Hardii is another case in point, raised from between R. berberiifolia and R. involucrata. Is there any mistake here?

[^13]:    * In presuming thus far we are supported by natural occurrences. The flowers of the Dogrose in the hedges and woods vary in size and colour ; and in the South of Europe some of the wild kinds have double flowers.

[^14]:    * I recollect once meeting with a plant at Garth Point, North Wales, which had fastened itself in the crevice of a bare rock, where it not only lived, but flourished. It was solitary : no plant disputed its position.

[^15]:    * The words "Ligneous" and "Herbaceous" are not used here in their strict botanical sense, but to distinguish the two races.

